

PRELIMINARY

TM 10698A-10/1

U.S. MARINE CORPS TECHNICAL MANUAL

**OPERATOR'S MANUAL
FOR
SHOTGUN, COMBAT
12 GAUGE, SEMI-AUTOMATIC
M1014
1005-01-472-3147**



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DEPARTMENT OF THE NAVY
Headquarters, U.S. Marine Corps
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30 November 2000

1. This **PRELIMINARY** Technical Manual (TM), authenticated for Marine Corps use and effective upon receipt, provides Operator's Instructions for the Shotgun, 12 Gauge Semi-Automatic, M1014.
2. This **PRELIMINARY** Technical Manual will be superceded by the final manual at a date to be determined. The final manual will be force fed to the requiring Marine Corps forces.
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SAFETY RULES

- Treat every weapon as though it were loaded.
- Never point any weapon at anyone or anything that you do not intend to shoot, or in a direction where an unintentional discharge may result in damage to property, injury or death.
- Never place your finger into the trigger guard or on the trigger until you are ready to fire the weapon.
- Be sure of your target and what's behind it before firing!
- Ensure that all parts of your hands and body are kept away from the muzzle of the weapon at all times.
- Always wear eye and ear protection when firing any firearm.
- Clear every weapon before handling it. Include the chamber, magazine tube and the top of the shell carrier.
- Insure that the muzzle of the weapon is above and clear of any support used to steady the shotgun during firing.
- Before firing, clear the shotgun and insure that the bore is clear and free of any type of obstructions or debris that could cause the barrel to rupture when the shotgun is fired.
- Never fire the shotgun without the forearm installed, both right and left halves.

CLEAR THE M1014 COMBAT SHOTGUN

Before handling the shotgun, "Clear It"! Do so by following the steps listed below in the exact sequence provided.

1. Make sure your fingers are off of the trigger, outside of the trigger guard, and the weapon is pointed in a safe direction at all times!
2. **On Safe** – Depress the cross-bolt safety button, located to the rear of the trigger, into "safe" position (red ring not visible) (Figures 1 and 1a).

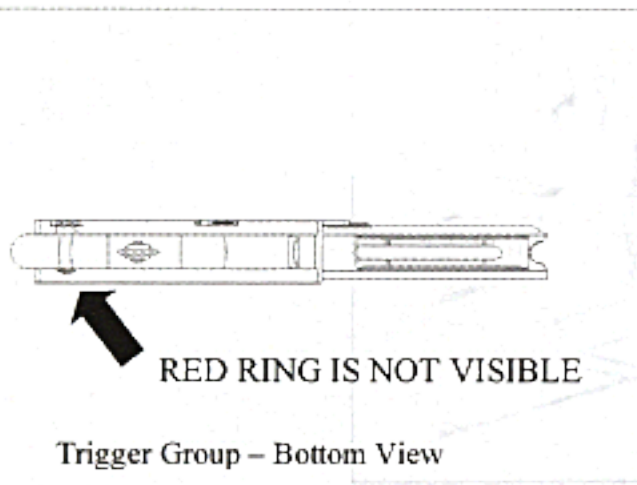


Figure 1. Safety button set on "safe"

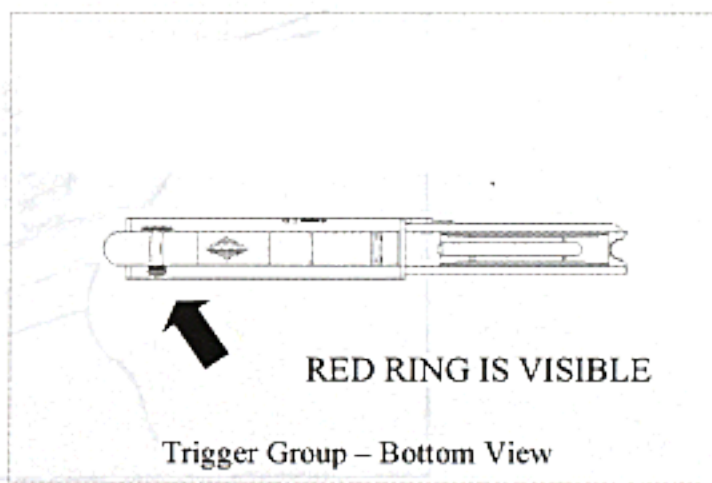


Figure 1a. Safety button set on "fire"

WARNING

The safety button of the M1014 Combat Shotgun is reversible for left and right hand use. Ensure that the red painted ring on the cross-bolt safety button is not visible when the safety button is placed in the safe position.

3. **Remove the chambered round** -- Remove the chambered round and/or the round on top of the shell carrier by pulling the bolt handle fully rearward multiple times to eject the round(s) (Figure 2).

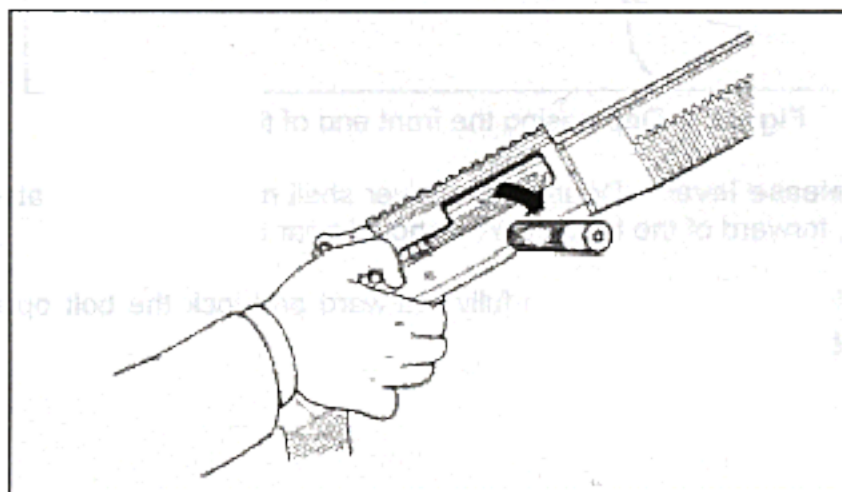


Figure 2. Removing the chambered round

4. **Empty the magazine (Figures 3 and 4)**

- A. Invert the shotgun so the loading port is facing up and the shell carrier is visible.
- B. Push in on the shell carrier (**Figure 3**) and depress the front end of the shell stop just behind the base of the shell (**Figure 4**). (The shell stop is located on the left side of the loading port when the weapon is upside down).
- C. Each time you depress the shell stop, one live round will be released from the magazine. Continue this procedure until all of the shells have been removed from the magazine.

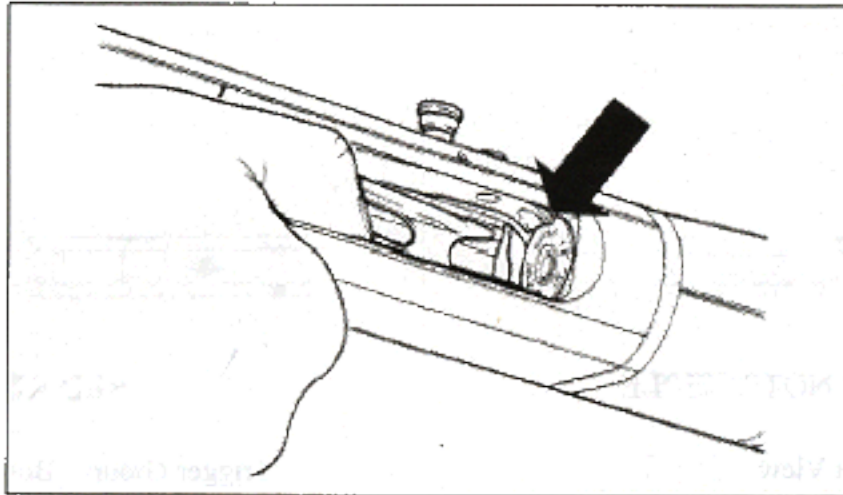


Figure 3. Lifting the shell carrier

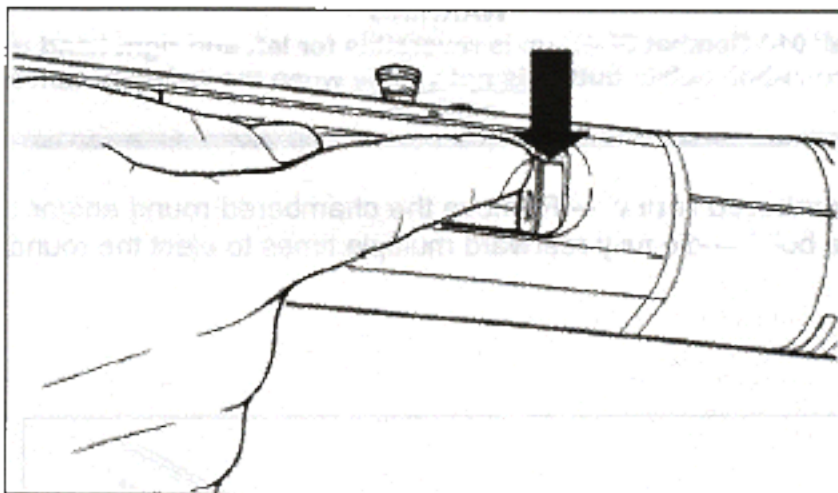


Figure 4. Depressing the front end of the shell stop

- 5. **Depress shell release lever** – Depress the silver shell release lever located on the right side of the trigger group, forward of the trigger. You should hear a "click".
- 6. **Bolt handle** – Retract the bolt handle fully rearward and lock the bolt open. The bolt will lock open only if the weapon is empty.

7. **Inspect chamber** – Inspect the chamber, magazine tube, and the top of the shell carrier for the presence of live shells or empty hulls.
- **Visually** – View the chamber and top of the shell carrier through the open ejection port. View the magazine tube through the loading port.
 - **Physically** – Insert your index finger through the ejection port into the chamber and feel for the presence of a live shell or empty hull in the chamber.
8. **Remove** – Remove any live shells or empty hulls from the chamber, receiver, or magazine tube of the weapon before handling the weapon further.

THE M1014 COMBAT SHOTGUN IS NOW CONSIDERED "CLEAR."

PURPOSE

The purpose of this manual is to familiarize the operator with the 12 gauge, semi-automatic **M1014 Combat Shotgun** and all aspects of its design, use, maintenance and operation, as well as the safety concerns of its use.

INTRODUCTION

These weapons are modified Non-Developmental Items (NDI), produced in response to a U.S. Joint Service solicitation for a new semi-automatic 12 gauge Combat Shotgun.

The M1014 Combat Shotgun was **produced** by:

Benelli Armi, S.p.A.
Via della Stazione, 50
61029 Urbino Italy
Telephone: 01139 0722 307 0
Telefax: 01139 0722 307 207

The M1014 Combat Shotgun is **imported and serviced** (contract DAAE30-99-C-1052) by:

Heckler & Koch, Inc.
21480 Pacific Boulevard
Sterling VA 20166-8903
Telephone: (703) 450-1900
Telefax: (703) 450-8160

DESCRIPTION OF THE M1014 COMBAT SHOTGUN

The M1014 Combat Shotgun was developed by Benelli Armi, Italy for Heckler & Koch, Inc. It was procured for issue to all of the Armed Services. The M1014 will replace the current inventory of pump-action shotguns within these organizations beginning in late 2000. The U.S. Marine Corps is the Joint Service Manager for this procurement and will receive the first production deliveries of nearly 4,000 shotguns.

The M1014 Combat Shotgun system meets or exceeds all of the performance requirements that were set forth by the U.S. Government. With its 3.00-inch chamber, the M1014 can fire both 2.75 inch and 3.00 inch magnum ammunition.

The M1014 functions using the new ARGO (Auto Regulating Gas Operated) Twin Operating System with rotating bolt head with dual locking lugs. The ARGO Twin System with its dual gas ports, pistons and cylinders was specially developed to meet the stringent operational and functional requirements for the Joint Service Combat Shotgun. This operating system is to a degree self-cleaning, unaffected by fouling, requires little or no maintenance, is self-regulating for cartridges of varying length and power levels, and functions reliably under all environmental conditions with both short and long barrels.

The M1014 Combat Shotgun is a semi-automatic weapon, fed by a fixed, tubular magazine. Low power "less-than-lethal" ammunition can be manually cycled using the extended bolt handle.

The shotgun is built around a modular assembly group approach that allows the operator to exchange the barrel and buttstock without tools and in seconds to configure the weapon to meet ever changing operational requirements.

The M1014 Combat Shotgun is fitted with Ghost Ring iron sights, adjustable for windage and elevation without special tools. A MIL STD 1913 accessory mounting rail is fitted to the top of the receiver of the weapon and allows the operator to mount all manner of targeting and sighting devices, such as the AN/PVS-4 night vision device and close combat optics, on the weapon in tandem with the iron sights.

Three modular buttstocks are available for use on the M1014 Combat Shotgun: the contract telescoping stock with a detachable pistol grip; and optional semi-pistol grip or pistol grip stocks, each of which can be installed without tools. An 18.50-inch barrel with fixed modified choke is provided with the weapon.

All operating controls and sling attachments points are arranged for ambidextrous use. The M1014 is 39.8 inches with the telescoping stock extended and 34.9 inches with it collapsed.

All interior and exterior surfaces of the shotgun are protected from wear and corrosion by a tough, non-reflective MILSPEC surface finish. The M1014 can be field stripped in seconds without any special tools. The bolt handle is the only item needed for complete operator disassembly of the M1014.

M1014 COMBAT SHOTGUN

The call-outs in **Figure 5** refer to items in Table 1, "Technical Features."

Table 1. Technical features of the M1014 Combat Shotgun
(Refer to call-outs in Figure 5)

1. Ghost Ring Sights

Improved visibility Ghost Ring sights for low light conditions.

2. Auto Regulating Gas Operating (ARGO) System

ARGO system gas valve with O-ring allows for the firing of low to high-pressure cartridges without the need of any mechanical regulation. Quick and easy disassembly can be performed without tools, using only the bolt handle.

New self-cleaning gas piston profile increases intervals between maintenance. Because of the simplicity of disassembly, cleaning may be done at the operator level without the use of tools. The time required for maintenance is also reduced as a result of the ARGO system.

Twin gas ports just forward of the chamber increase reliability with assorted ammunition types when the weapon is fouled or while operating in harsh environments.

3. Tubular Magazine

The steel alloy magazine is capable of holding seven 2.75" or six 3.00" cartridges and is reinforced by heat treatment.

4. Barrel

The barrel has two rings (hangers) giving the shotgun better rigidity. This allows the barrel to achieve the best ballistic performance possible.

5. Locking System

The traditionally safe Benelli locking system includes a milled mechanical guide for the rotating bolt head on the barrel extension. The shotgun has a revised bolt cam for a higher reliability in adverse conditions (mud, low temperature, etc.)

6. Firing Pin

The M1014 Combat Shotgun has a new lighter firing pin and a new firing pin spring to improve safety, especially during drops or rough handling.

7. Link

A high resistance, steel alloy, heat-treated link has been adopted for increased durability.

8. Bolt Handle

A sturdy bolt handle with a new attachment system has been designed in order to resist rough handling. A new profile has been provided in order to give better ergonomics to the bolt handle.

9. Rear Sight Protection

Rear sight protection strength has been increased by heat treatment. The rear sight aperture may be adjusted both vertically and horizontally using the rim of a shell or the bolt handle.

10. Mounting Rail

The optics mounting rail conforms to MIL STD 1913, "Dimensioning of Accessory Mounting Rail for Small Arms Weapons," dated 3 February 1995, and will accept all targeting devices designed to attach to this rail.

11. Telescoping Buttstock

A telescoping buttstock with a pistol grip handle allows the gun to be shortened to 35" without the use of any tools. It needs only to have a button pushed and held depressed and the stock rotated in order to pass from an extended to a collapsed position. The same simple operation is used for removal of the buttstock.

12. Recoil Tube

The new recoil tube allows quick and easy installation of buttstocks without the use of tools.

Table 1. Technical features of the M1014 Combat Shotgun
(Refer to call-outs in Figure 5)
(cont'd)

13. Safety Button

The safety red zone has been increased in order to permit better visibility. The plates are different in shape to permit tactile identification. The safety button is reversible by a unit armorer for left-handed operators.

14. Shell Release Lever

The shell release lever system allows for the release of a round present in the tubular magazine onto the shell carrier during loading. It is also used to lock the bolt rearward when the weapon is empty.

15. Shell Carrier

The design of the shell carrier has been improved in order to produce better cartridge feeding and chambering.

16. Sling Attachments

Integrated ambidextrous sling attachment points in the stock and in the rear barrel ring allow for the use of U.S. small arms slings.

17. Magazine Cap

An ergonomic magazine cap has been reinforced with a metal insert.

18. Follower

New geometry allows for smooth loading in standard and adverse conditions. The empty magazine may be checked visually (red color) or by touch (raised ring).

19. Magazine Seal Ring

The seal ring holds the compressed magazine spring within the magazine during field stripping. It can be removed, inspected and reinstalled by the operator without special tools when the tubular magazine requires cleaning using only the bolt handle.

20. Captured Trigger Bolt Group Locking Pin

The shotgun may be stripped into major sub-assemblies (barrel assembly, bolt, trigger, receiver and stock assemblies) in a few seconds without the use of any tools and with reduced risk of losing parts. Small components such as the locking pin (receiver) and firing pin (bolt) are protected from loss during disassembly by the retaining systems employed in this design.

21. Bolt release

Positioned for ambidextrous actuation by the operator's non-shooting hand. The bolt release allows the bolt to travel forward during loading.

Features include:

- Shoulder-fired with a modular telescoping buttstock with pistol grip.
- The ability to fire 2.75-inch standard and 3.00-inch magnum shells interchangeably.
- A reinforced, heat-treated, steel alloy tubular magazine with the capacity to hold seven 2.75-inch shells.
- A Ghost Ring sighting system and an accessory-mounting rail.
- An improved ARGO (Auto Regulating Gas Operating) system.

Table 2 outlines the physical characteristics of the M1014 Combat Shotgun.

M1014 COMBAT SHOTGUN

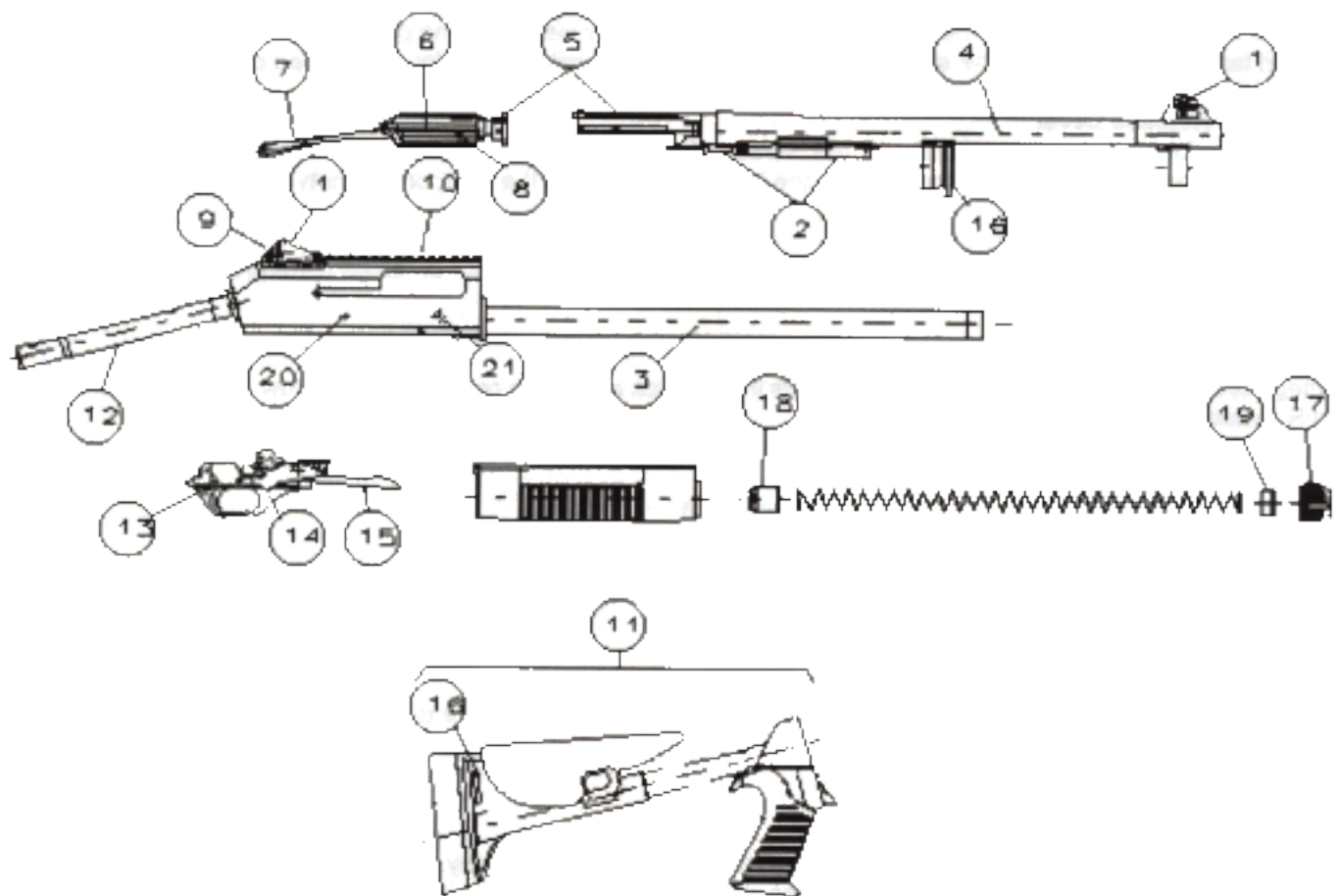


Figure 5. M1014 Combat Shotgun nomenclature

Table 2. Technical data for the M1014 Combat Shotgun

Caliber	12-gauge
Chamber length	3.00"
Method of operation	Semi-automatic and manual cycling.
System of operation	ARGO Twin System (Auto-Regulating Gas Operated) with dual gas system.
Bolt system	Rotating bolt head with dual locking lugs.
Safeties	1. Ambidextrous cross-bolt safety button. 2. Disconnect. 3. Inertia firing pin drop safety. 4. Bolt group design
Magazine capacity	18.50" Barrel 2.75" shells – 7 3.00" shells – 6
Butt stock	Modular telescopic buttstock with removable pistol grip.
External finish	Steel parts – heavy phosphate Aluminum parts – hard anodic Durable, corrosion resistant, non-reflective, black in color.
Barrel options	Standard 18.50" barrel with fixed modified choke. Barrels exchangeable by operator without tools.
Sights	Mechanical Ghost Ring sights adjustable for elevation and windage.
Accessory mounting rail	On receiver to MIL STD 1913 dimensions. With 13 recoil grooves, semi-permanently attached to receiver using five mounting screws.
Sling attachment	Accommodates standard U.S. military rifle sling up to 1.25" width. Ambidextrous attachment points.
Targeting	Average of 6.4 pellets struck E-type silhouette at 40 meters.
Safe unloading of magazine	Without cycling rounds through action. Manual removal of loaded shells in magazine through loading port.
Ambidextrous operation	Operate by left and right-handed shooters. All operating controls and sling attachment points allow for ambidextrous operation.
Operator maintenance	Average time to field strip is under 36 seconds. Average time to clean and lube less than 10 minutes. Average time to load 11.5 seconds.
Endurance	Exceeds 10,00 rounds without requiring overhaul.
Weight (pounds)	8.44 lbs (empty)
Trigger pull	5.50 – 7.28 lbs
Overall length (inches)	39.8" buttstock extended. 34.9" buttstock collapsed.
Sight radius	23.70"
Height (inches)	8.26"
Width (inches)	2.30"

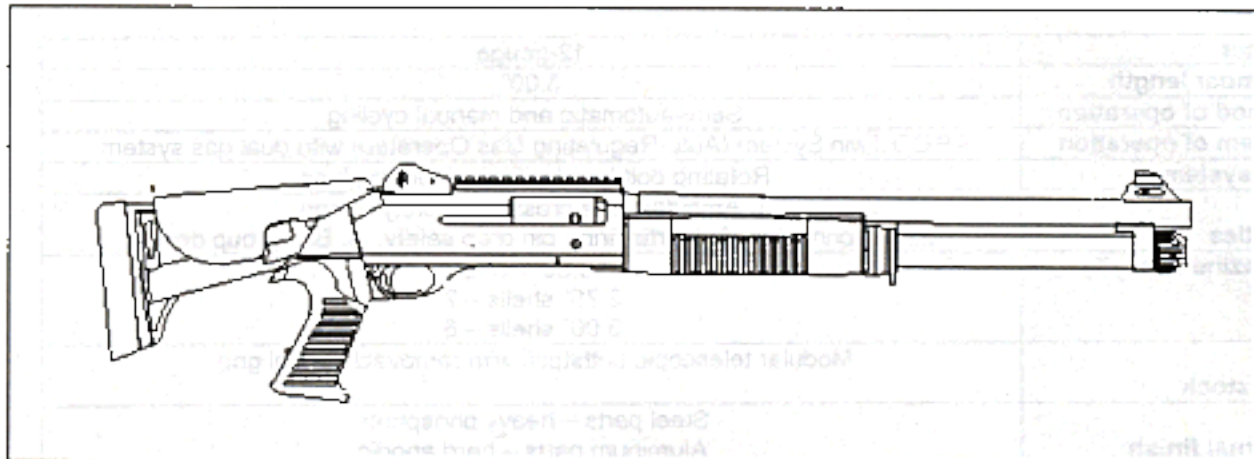


Figure 6. M1014 Combat Shotgun with telescoping stock collapsed (right side)

Weapon and Operating Controls

Cross-bolt Safety Button (Figures 6a and 6b) – The only active safety on the M1014 Combat Shotgun. This safety acts to prevent the release of the cocked hammer should the trigger be pulled when the weapon is set on “safe.” This safety is located on the trigger group directly to the rear of the trigger and is actively actuated by the operator. The safety button can be removed and reversed by the armorer for use by right or left-hand users if necessary. Production shotguns are delivered with the safety button set up for use by right-handed operators (red ring visible on the left side of the weapon when set on “fire”).

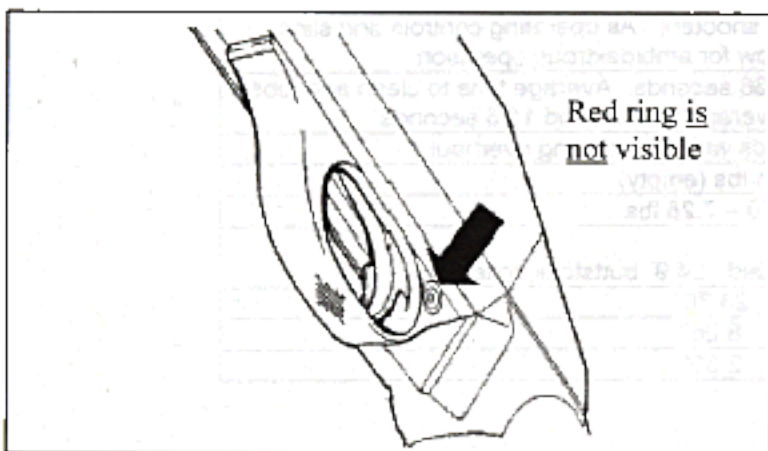


Figure 6a. On “safe”

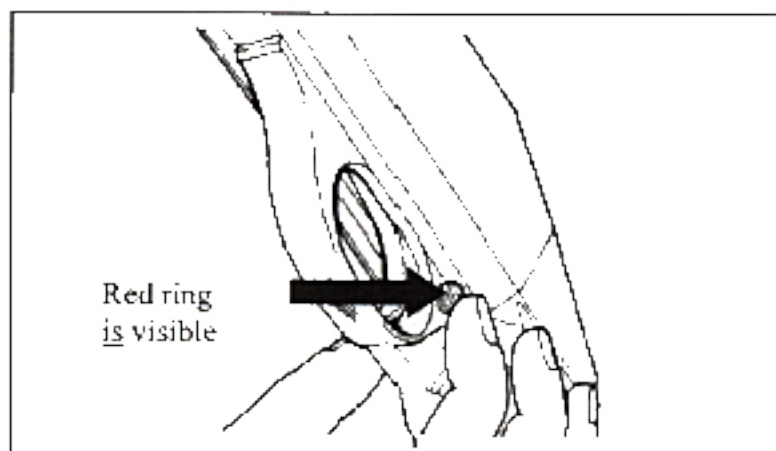


Figure 6b. On “fire”

The safety button is set in the “safe” position when the red painted ring on the button is not visible. The safety is in the “fire” position when the red painted ring is visible.

The lateral movement of the cross-bolt button inside the trigger mechanism blocks the movement of the trigger. When the cross-bolt safety button is set in the “safe” position, the solid portion of the safety axle blocks the disengagement of the sear claw on the trigger from the cocked hammer and thus the subsequent release of the cocked hammer if the trigger is pulled or the weapon is dropped. When engaged, the cross-bolt safety button still allows the weapon to be loaded and unloaded and the bolt group retracted and released.

The safety button has oversized heads (with different shapes) to allow for easy and quick actuation under stress and low visibility without adjusting the grip of the firing hand, even when wearing gloves.

Trigger – The trigger is fashioned from aluminum alloy and is located within the trigger guard of the weapon. The trigger serves to fire the weapon once loaded and the manual cross-bolt safety button is set in the "fire" position. The trigger pull of the M1014 Combat Shotgun is a conventional double-stage pull with little or no slack and weighs between 5.50 to 7.28 lbs. The trigger is easily accessible in the oversized trigger guard by an operator wearing gloves. The front surface of the trigger is smooth without serrations.

Bolt Release Button – The bolt release button is located on the right side of the receiver just below the bolt handle and ejection port. This operating control is depressed by the operator to close the open bolt and is attached to the shell stop. The operator can easily actuate this button while under stress using the non-firing hand without adjusting the grip of the firing hand (**Figure 6c**).

Shell Release Lever – This operating control has a dual purpose. Located on the right side of the trigger group, this black colored lever with red dot is pressed upwards by the operator into the receiver of the weapon. This lever is located in such a way that the right-handed operator can actuate this control using the trigger finger (normally without adjusting the grip of the firing hand) (**Figure 6d**).

One function of the shell release lever is to act as a bolt catch to lock the bolt to the rear on an empty weapon. With an empty weapon the operator presses up on the shell release lever and retracts the bolt handle fully rearward to lock the bolt group open. If there is ammunition still remaining in the magazine, the bolt cannot be locked open. This acts as an effective safety feature. If the lever with its cautionary red dot is visible, it is a sign that the weapon still contains one or more rounds, that the hammer is cocked and that the weapon will fire if the trigger is pulled with the safety button in the "fire" position. This red dot is only fully visible when the bolt is closed and the hammer is cocked.

The second function of the shell release lever is to allow the operator to release a shell from the magazine tube when the bolt is forward. This action allows the operator to place a round on the shell carrier with or without a round chambered for loading purposes.

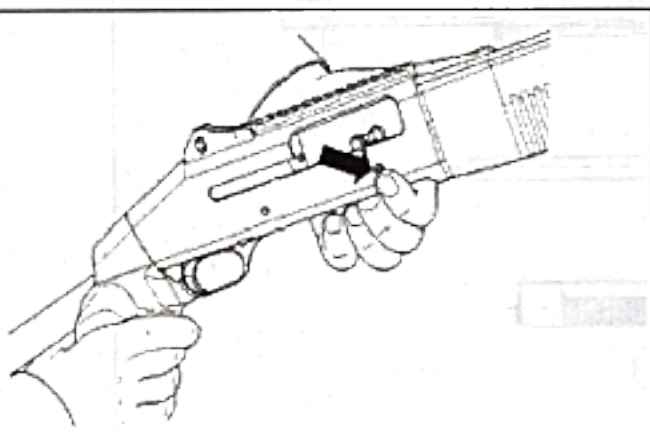


Figure 6c. Bolt release button

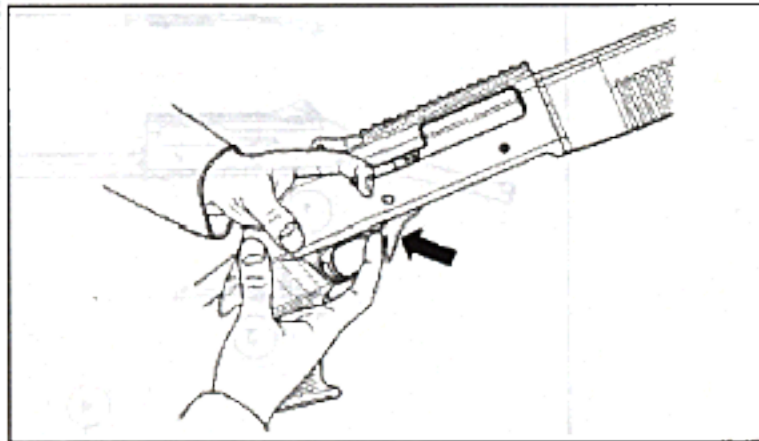


Figure 6d. Shell release lever

Bolt Handle – The bolt handle is located on the right side of the weapon and protrudes from the bolt carrier through the ejection port. The bolt handle is used by the operator to retract the bolt in the weapon during loading and clearing procedures. This bolt handle reciprocates with the bolt during firing. This operating control is held within the bolt group by a detent and is easily removed by the operator during fieldstripping. The bolt handle is oversized and textured for easy use with gloved or wet hands or while under stress by both right and left-handed users. In addition, the ends of the bolt handle are used to remove the trigger group locking pin, the gas cylinder plugs, and the magazine spring seal ring during operator disassembly of the weapon.

Shell Stop – Attached to the bolt release button and housed on the inside of the receiver adjacent to and parallel with the loading port, the shell stop regulates the retention and release of rounds in the magazine. This device is activated by the shell release lever to release shells from the magazine tube, either manually by the operator or by the weapons mechanism during firing. The front end of the shell stop can be depressed by the operator's finger to remove rounds from the magazine during unloading without the need to cycle each round through the action of the shotgun.

DESCRIPTION OF ASSEMBLY GROUPS

The unique design of the M1014 Combat Shotgun takes advantage of modular "assembly group" construction. This allows any of the assembly groups that make up the complete weapon to be removed or replaced at any time by the operator and without tools. This provides an unmatched degree of tactical flexibility, allowing the operator to configure the weapon with a wide variety of optional assembly groups and accessories to meet his or her exact operational requirements for employment of the weapon. In addition, should one of the assembly groups be damaged or not operating correctly, the operator can replace the affected group with a serviceable group from available unit inventory. This eliminates the need to take the entire weapon out of service for repair and adversely affecting the operational capability of the unit. This unserviceable assembly group can then be repaired or replaced at the leisure of the unit armorer or a higher echelon of maintenance.

The M1014 Combat Shotgun is comprised of seven assembly groups (Figure 7). These assembly groups are:

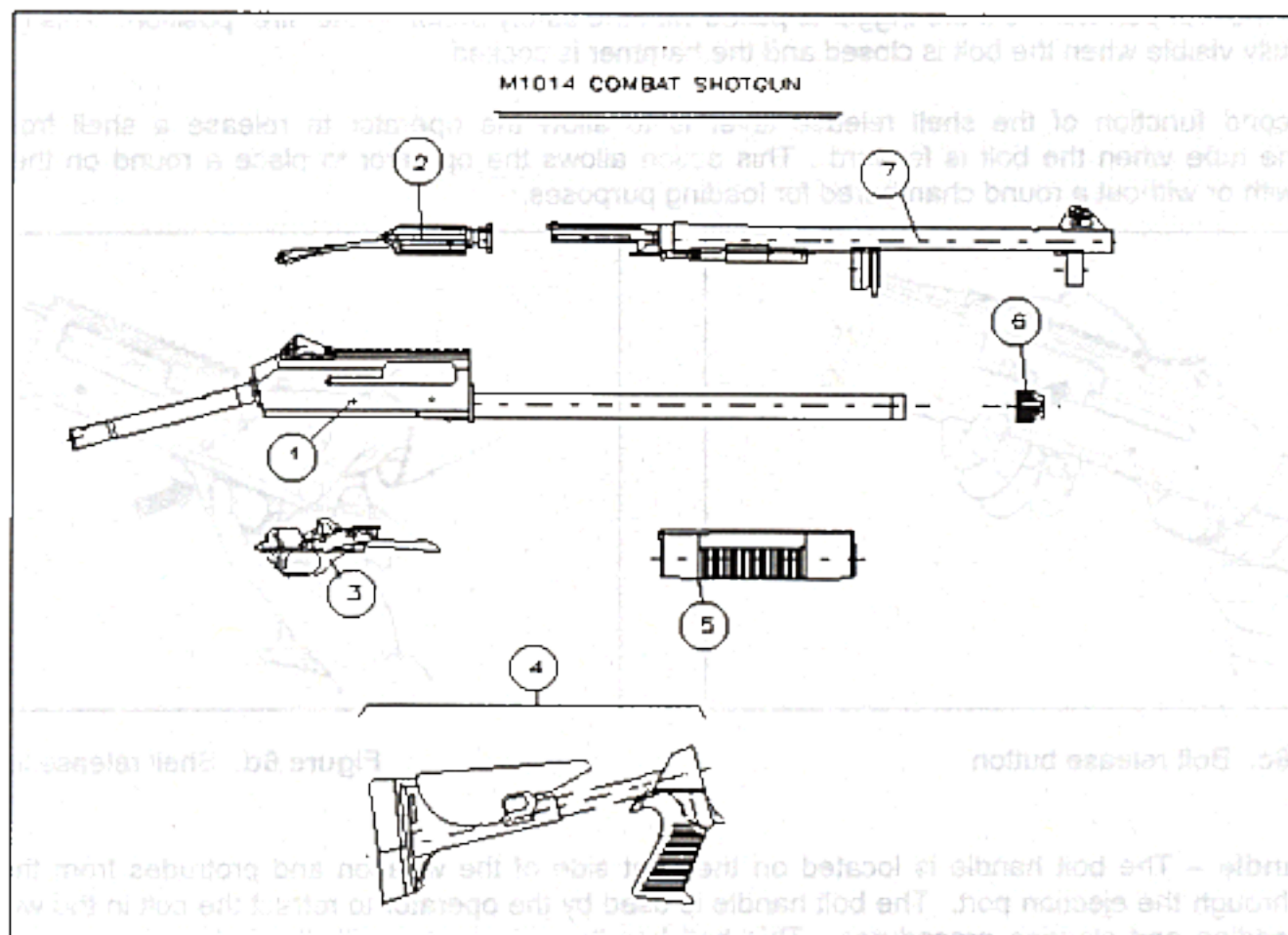


Figure 7. Exploded view of assembly groups

1. Receiver with tubular magazine and recoil spring
2. Bolt group
3. Trigger group
4. Buttstock
5. Forearm
6. Magazine cap
7. Barrel with gas system

Group 1: Receiver – The receiver is the central, universal component of the weapon that remains unchanged as the weapon is reconfigured using the various optional assembly groups available. The aluminum receiver connects the barrel, magazine, bolt group, trigger group and buttstock. The receiver of the M1014 Combat Shotgun is a one-piece component machined from aircraft grade aluminum. The receiver of the M1014 contains most of the operating controls, the safety devices, the shell stop lever with bolt release button, the trigger group locking pin, the magazine tube, the recoil spring assembly, the adjustable rear sight assembly, and the accessory mounting rail on the M1014 model.

Group 2: Bolt Group – The bolt group of the M1014 Combat Shotgun is housed and guided back and forth inside the receiver. In tandem with the cartridge case, the bolt group (seals) the rear opening of the chamber using a rotary bolt head and is responsible for the safe sealing of the breech which must contain peak pressures that can be exceeded 15,000 psi for each shot fired. The bolt group is also responsible for feeding and igniting a live cartridge and for extracting and ejecting the empty cartridge case.

In addition, the bolt group cocks the hammer for subsequent shots each time it travels rearward in the receiver of the weapon and actuates the shell carrier to position the live shell for proper feeding. The bolt group locks open when the last round is fired. As an additional safety feature, if rounds remain in the weapon or tubular magazine it is impossible to lock the bolt rearward.

The bolt handle can be used as a tool for moving the captured locking pin for the trigger group, unscrewing and tightening the gas plug cylinders, removing and replacing the magazine spring seal ring, and adjusting the rear sight.

Group 3: Trigger Group – The trigger group of the M1014 Combat Shotgun is attached to the receiver and can be removed by first partially moving the small, captured locking pin to the open position. The trigger group is comprised of the trigger guard, trigger mechanism with shell carrier, reversible cross-bolt safety button, shell drop lever, all attached to or housed in an aluminum frame with oversized trigger guard. The trigger group contains all component parts responsible for the trigger pull of the weapon and the safe retention/release of the cocked hammer, as well as the lifting of the round from the magazine tube into feeding position. The trigger group must be removed from the receiver before the buttstock can be removed as it retains the buttstock in position. The trigger group is secured in place in the receiver by the captured locking pin.

Group 4: Buttstock – The M1014 Combat Shotgun is provided with a telescoping buttstock with a pistol grip. The buttstock has a textured gripping surface and contains ambidextrous rear sling mounting points.

The length of pull of the weapon is approximately 14.25 inches.

To collapse the telescoping stock, grip the buttstock with your right hand and depress and hold the button with your thumb. Rotate the collapsible stock module clockwise and push it forward. When the collapsible buttstock module is completely forward, rotate it counter-clockwise to the vertical position and release the button. Reverse to extend the stock (**Figure 8**).

To remove the stock, line it up with the center notch on the recoil spring tube, rotate counter-clockwise, and pull off. The pistol grip can then be rotated off. Reverse to install both.

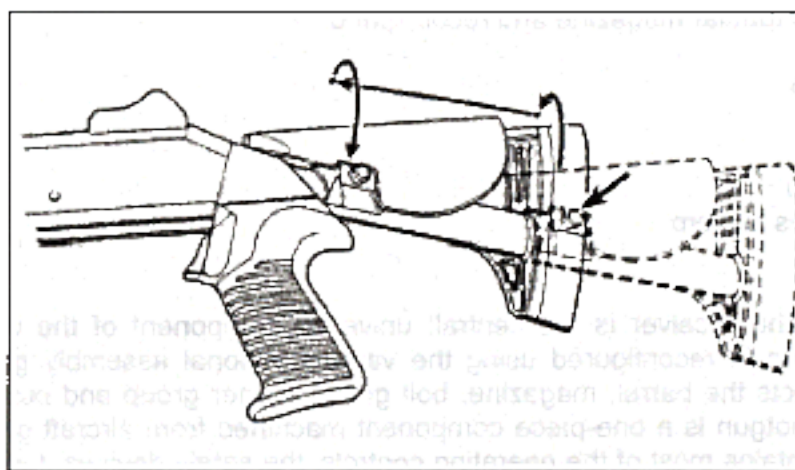


Figure 8. Collapsing the buttstock

NOTE

When moving the buttstock module up and down the recoil tube or rotating it, keep the button depressed to prevent binding and wear on the recoil tube.

Group 5: Forearm – The removable two-piece (left and right) black carbon fiber reinforced polymer forearm halves surround the rear half of the tubular magazine and the complete gas system. They are secured to the weapon by the front and rear forearm bands and retained in place by the screw-on magazine tube cap. The design of the forearm protects the operator's hands from the hot barrel and is textured to reduce slippage. The circular opening in the rear barrel ring contains the spring and lock washers for the forearm. Both right and left halves of the forearm are marked "right" and "left" with an arrow pointing to the muzzle end to simplify assembly, and are similar in configuration to that of the U.S. M16A2 rifle.

Group 6: Tubular Magazine – Arguably the most important assembly group of the weapon as good or bad functioning of the weapon starts in the magazine. Many stoppages occur as a result of an unserviceable or poorly maintained magazine. Attached to the tubular magazine is a magazine cap that can be removed by the operator during field stripping for cleaning and maintenance. The magazine cap holds the forearm and barrel in place on the weapon (**Figure 9**).

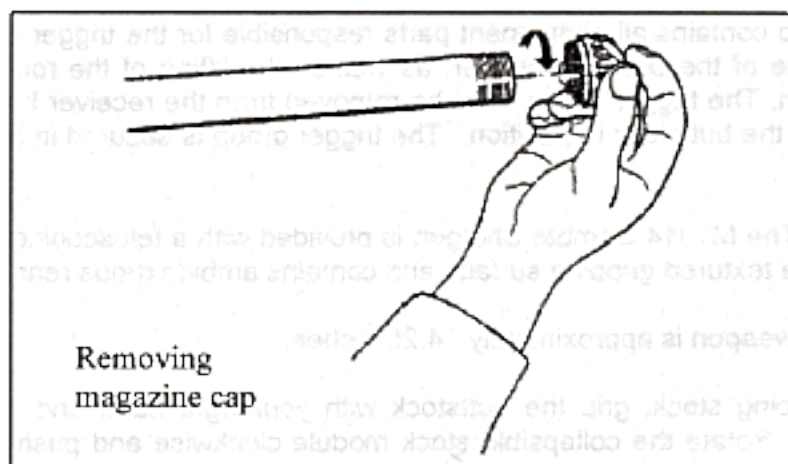


Figure 9. Tubular magazine with magazine cap

The magazine follower is produced using a highly visible red material to allow easy identification of the status of ammunition present in the magazine. A raised "ring" is present in the center of the face of the magazine follower for "tactile" feel by the operator to determine by touch if the magazine is empty. The magazine spring is a coil-style compression spring. It can be removed, along with the magazine follower,

for cleaning by the operator by first removing the magazine cap and the magazine spring seal ring (which can be removed with the bolt handle).

Group 7: Barrel – The M1014 Combat Shotgun is provided with a standard 18.50 inch barrel. The barrel of the M1014 Combat Shotgun is an operator removable assembly group containing the steel barrel extension, complete gas system, two-barrel rings (hangers), ejector assembly, and front sight assembly.

The steel barrel extension on the M1014 Combat Shotgun is threaded onto the steel barrel and secured using a strong thread adhesive called "Loc-tite."

The barrel is cold-hammer forged with chrome liner, which increases the strength, wear and corrosion resistant qualities of the barrel and bore.

PREPARING THE M1014 COMBAT SHOTGUN FOR USE

Before handling the shotgun, "CLEAR IT" (refer to the clearing procedure described in this manual).

INSPECTION PRIOR TO USE

Before attempting to fire the M1014 Combat Shotgun, inspect the weapon as follows:

NOTE

MAKE SURE BOLT HANDLE IS INSTALLED IN BOLT. (See Figure 40)

- **CLEAR THE WEAPON!**
- Conduct a function check (see section in this manual entitled "Function Check").
- Ensure that the bore and chamber are clear and free of obstructions.
- Make sure that the weapon is complete, properly assembled, cleaned and lubricated.
- Ensure that the tubular magazine is serviceable, undamaged and properly cleaned and lubricated, that the magazine cap is tightly fitted to the weapon and the magazine follower moves freely without binding in the magazine tube against spring tension.
- Ensure that all accessories are serviceable and ready for use.
- Run a dry patch through the bore to remove excess lubrication.
- Ensure that the rear and front sight assemblies and their component parts and all associated mounting hardware for the accessory rail are properly attached and secured.
- Select the appropriate ammunition of the correct caliber, 12-gauge, 2.75" or 3.00".
- Ensure that the settings of the sights and/or targeting devices are properly set and adjusted.
- Ensure that the gas pistons move freely within the gas cylinders with the bolt group locked open.

ATTACHING ACCESSORIES TO THE SIGHT MOUNT

The M1014 Combat Shotgun is fitted with a semi-permanent aluminum accessory mounting rail. This rail is attached to the top of the weapons receiver using five steel mounting screws. This accessory rail conforms to MIL STD 1913 mounting dimensions and will accept all mounts and attachment hardware designed for attachment to this rail, including those designed for other issue weapons such as the M16A4 rifle, M4A1 carbine, M249 SAW, and M240 machine gun, as well as others fitted with this rail.

There is sufficient length of mounting rail available to place one or more accessories on the weapon, either alone or in tandem. The special design of this accessory mounting rail has a longitudinal groove cut along its length. This groove allows the iron sights to be utilized even with accessories attached atop the rail.

- Before mounting the accessories, insure that the mounting rail is free of debris and undamaged.
- Read the instructions for the correct mounting of the accessory as supplied by the manufacturer with that device.
- Position the accessory at the preferred mounting point on the rail.
- Secure the accessory to the weapon by closing the locking device fully as directed by the manufacturer.
- Check for a secure attachment by pulling gently forward and sideways on the accessory.
- Once mounted, confirm the manufacturer's instructions as provided with the item.
- Insure bolt handle is installed in bolt (See Figure 40).

WARNING

Before loading the shotgun, review the safety rules and procedures for clearing the weapon.

Free Carrier Operation – The unique design of the M1014 Combat Shotgun incorporates a “free shell carrier” that allows for numerous optional loading and unloading methods. Unlike most conventional shotguns, the mechanism of the M1014 Combat Shotgun does not always release a shell from the tubular magazine each time the bolt group travels rearward. Only when the trigger is pulled or the shell drop lever is depressed is a round released from the magazine onto the shell carrier.

The free carrier design provides the operator with a much greater flexibility for employing and carrying the weapon in varying operational environments. The M1014 Combat Shotgun can be carried and fired with a shell chambered, rounds in the magazine and a shell resting on top of the shell cartridge. The weapon will not release another shell from the magazine until the round resting on the shell carrier is fed into the chamber.

This extremely helpful feature allows the capacity of the weapon to be increased by one round over that of conventional shotguns of the same style and length. In addition, the free carrier allows the operator the ability at any time to change the round in the chamber with a more suitable round for the target presenting itself without the need to first unload the entire magazine. And finally, this design helps to reduce the incidence of operator-induced stoppages caused by the use of an improper loading procedure when a round slips out of the magazine tube onto the shell carrier with a round already chambered.

Administrative Loading (bolt group locked rearward) – used for initial loading of the Combat Shotgun from a “clear” condition or when reloading after the weapon is fired dry (empty).

1. **Muzzle safe, fingers out** – Point the muzzle of the shotgun in a safe direction. Remove your fingers off of the trigger and outside of the trigger guard.
2. **Safety on** – Place the cross-bolt safety in the “safe” position (red ring is not visible).
3. **Insert round** – Place one live round onto the top of the shell carrier through the open ejection port with the rim of the round facing the rear of the weapon.
4. **Close bolt** – Depress the bolt release button to close the bolt and chamber a round. The bolt release button is the round textured button protruding from the right side of the receiver below the ejection port.
5. **Fill Magazine** – Push up on the unlocked shell carrier and insert rounds one by one into the tubular magazine through the loading port. Ensure that:
 - The shell is inserted into the magazine with the rim facing rearward.
 - The shell is pushed fully into the magazine tube until the shell stop holds the round in place in the magazine tube. (Listen/feel for a small tactile “click” when the shell stop snaps behind the rim of the shell).

Continue this procedure until the magazine is full or the desired number of rounds has been loaded (**Figure 10**).

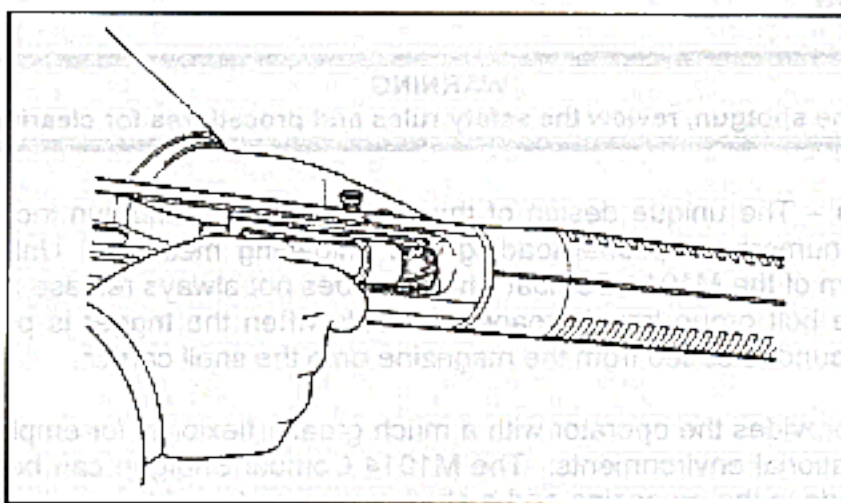


Figure 10. Filling the magazine

NOTE

The design of the M1014 Combat Shotgun allows all types of ammunition of 2.75 and 3.00 inch magnum lengths to be intermixed in the magazine.

Cruiser Loading (loading with the bolt forward, chamber empty) – used to load the magazine of the weapon while keeping the chamber empty.

This is a common loading method for transporting the weapon in a vehicle (such as a police cruiser, wherein comes the name) or aircraft when immediate use is required yet impact induced firing must be prevented. In addition, cruiser loading allows the action to be "racked" as an attention getter in the presence of impressionable would-be troublemakers.

CLEAR THE WEAPON!

1. **Muzzle safe, fingers out –** Point the muzzle of the shotgun in a "safe" direction. Remove the fingers off of the trigger and outside of the trigger guard.
2. **On safe –** Place the cross-bolt safety button in the "safe" position. (Red ring is not visible).
3. **Close bolt –** Depress the bolt release button to close the bolt on an empty chamber.
4. **Fill magazine –** Insert shells through the loading port into the magazine.
5. **Depress shell release –** Depress the shell release lever, the black lever with red dot located on the right side of the trigger group, to release a round from the magazine onto the shell carrier.

The M1014 Combat Shotgun can now be safely carried with an empty chamber. To fire the shotgun, the bolt handle is pulled fully rearward and released to chamber the shell resting on top of the shell carrier. At this point an additional round can be inserted into the magazine to bring the weapon back to full capacity.

For additional safety, "depress shell release" step (above) can be taken just prior to chambering the live round, though the "stowed" rounds in the weapon and available to the operator will be reduced by one round.

Combat Reloading (loading with the bolt forward, round chambered) - Used to reload the weapon during use before the magazine is emptied with a live round still chambered.

An important feature of the tubular magazine-fed Combat Shotgun over those fed by detachable box magazines or drums is the capability for the operator to constantly fill or refill the magazine of the shotgun even while it is being held in a firing position and immediately ready to be fired.

This can be accomplished more quickly than exchanging box magazines while, most importantly, allowing the user to keep the weapon on a target or trained on the target area should a threat suddenly arise during reloading. Ammunition can also be mixed during firing to deal with changing targets appearing before the shooter.

The operator should practice combat reloading until it can be accomplished with the weapon in the firing position and without watching the manipulation of the weapon and shells. When a round is fired and an opportunity arises to replace it, the round is replaced immediately by a new one without rendering the weapon empty (useless) and thus the shooter defenseless (dead).

1. **Muzzle safe, fingers out** – Keep the muzzle of the weapon pointed in the "safe" direction with your fingers off of the trigger and outside of the trigger guard.
2. **Safety off** – As this is combat reloading, the safety button remains in the "fire" position (red ring is visible).
3. **Fill magazine** – While still watching the target area, use the firing hand to remove single rounds from your ammo pouch and insert them into the magazine through the loading port until the magazine is back at full capacity.

NOTE

With each round fired, the operator can insert a new one into the magazine.

Carrier loading (loading a round on the carrier with a round chambered and the magazine full)

It is possible to increase the standard magazine capacity of the M1014 Combat Shotgun beyond the normal capacity of the shotgun, including the chambered round and those rounds in the magazine. This is done by placing a shell on top of the shell carrier. Only the unique free carrier operation of the M1014 Combat Shotgun provides for this.

1. **Muzzle safe, fingers out** – Point the muzzle of the shotgun in a "safe" direction. Remove your fingers off of the trigger and outside of the trigger guard.
2. **On safe** – Place the cross-bolt safety button in the "safe" position. (Red ring is not visible).
3. **Load to capacity** – Load the M1014 Combat Shotgun to capacity using the "administrative loading procedures" described previously.
4. **Remove round from chamber** – Keeping the weapon pointed in a safe direction, use the non-firing hand to pull the bolt rearward just far enough to remove the round from the chamber and hold it there.

NOTE

If you pull the bolt too far to the rear, the shell carrier will rise thereby preventing you from continuing. If this occurs, remove the chambered round and let the bolt go forward. Begin again with step 4. "Remove round from chamber."

5. **Place round on carrier** – Push the round just removed from the chamber down onto the shell carrier using the firing hand.

6. **Insert new round** – Using the firing hand, place a new round fully into the chamber of the weapon and release the bolt to chamber it.

At this point the magazine should be full, a round will be resting on the top of the shell carrier, and a round will be chambered. The weapon is at full capacity plus one and will function properly when fired due to the free shell carrier feature of this Combat Shotgun.

Note, however, that you will have to remove both the chambered round and the round on the carrier should you wish to change the kind of ammunition in the chamber as described below.

REMOVING/EXCHANGING THE CHAMBERED ROUND (Figure 11)

The free carrier in the M1014 Combat Shotgun allows the chambered round to be removed or exchanged with a different round without the need to first unload the magazine tube. This allows the weapon to be "half unloaded" for safe tactical handling of the shotgun (handing it onto a roof or over a fence). In addition, the operator can quickly remove the round from the chamber and replace it with a different round that is more appropriate for the target at hand.

1. Grasp the forearm of the combat shotgun firmly with the non-firing (weak) hand.
2. Remove the firing hand from the buttstock and secure a round of the preferred type from the ammunition pouch. Hold this round between the thumb and index finger of the firing hand with the rim or base of the shell point towards the palm.
3. Use the edge of the firing hand below the small finger to push smartly rearward on the bolt handle **and hold it open**. This will cause the chambered round to eject from the shotgun.
4. While holding the bolt open, insert the new round into the weapon through the ejection port.
5. Release the bolt handle to chamber the new round. **DO NOT RIDE THE BOLT HANDLE FORWARD or the round may not fully chamber!**

To simply remove a round from the chamber, tilt the shotgun to the right (ejection port facing down) and repeat step 3 above, i.e., "use the edge of the firing hand below the small finger to push rearward on the bolt handle **and hold it open**."

UNLOADING THE FILLED MAGAZINE

It is possible to unload the rounds from the magazine without the need to cycle them through the action of the shotgun. This lessens the damage and deformation of the shells, which occurs from repeated transport and cycling through the weapons mechanism. This damage and deformation of shells can cause functional problems in the shotgun that would not occur otherwise. Therefore, it is strongly recommended that this method of emptying the magazine be utilized whenever possible.

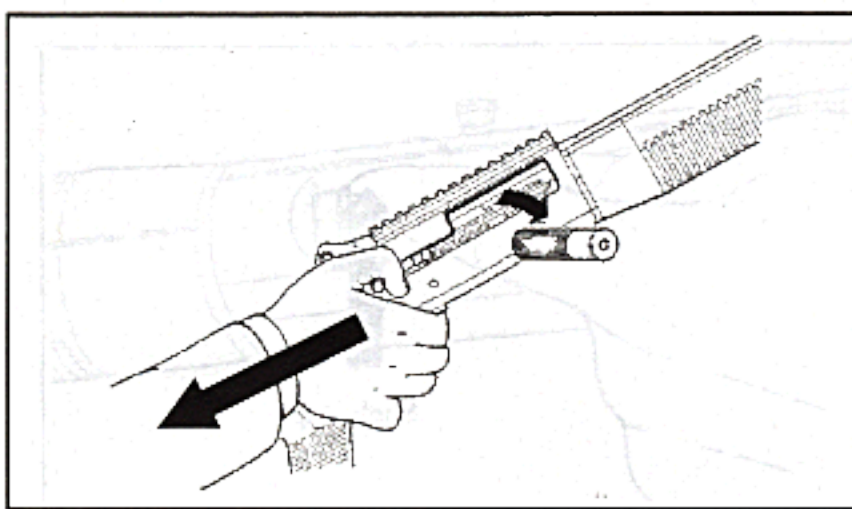


Figure 11. Removing the chambered round

EMPTYING THE MAGAZINE (Figures 12 and 13)

1. **Muzzle safe, fingers out** – Point the muzzle of the shotgun in a "safe" direction. Remove your fingers off of the trigger and outside of the trigger guard.
2. **On safe** – Place the cross-bolt safety button in the "safe" position (red ring is not visible).
3. **Remove the chambered round** – Remove the chambered round and/or the round on top of the shell carrier by pulling the bolt handle fully rearward multiple times.
4. Invert the shotgun so the loading port is facing up and the shell carrier is visible.
5. Push in on the shell carrier and depress the front end of the shell stop just behind the base of the shell. (The shell stop is located on the left side of the loading port when the weapon is upside down).

Each time you depress the shell stop one live round will be released from the magazine. Continue this procedure until all of the shells have been removed from the magazine.

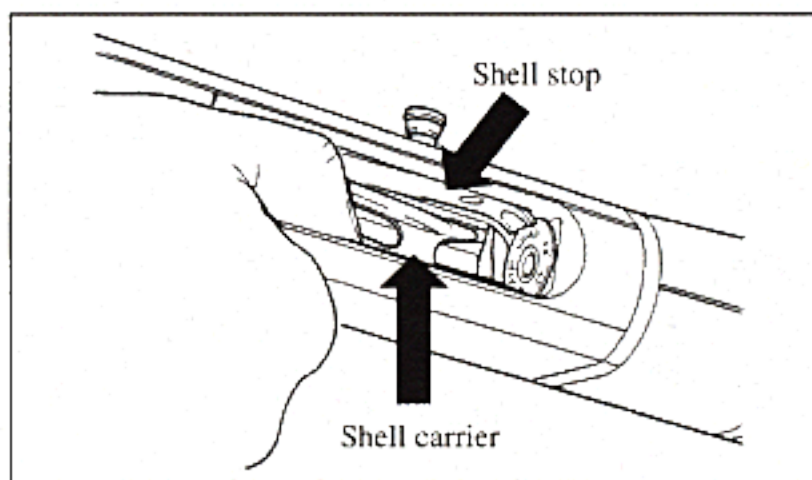


Figure 12. Lifting the shell carrier

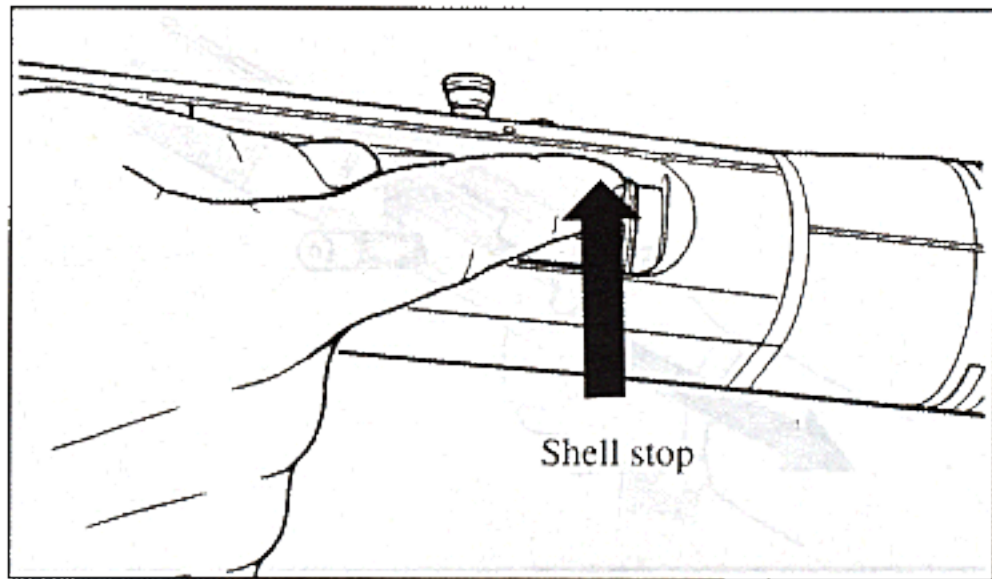


Figure 13. Depressing the front end of the shell stop

CLEAR THE WEAPON – as described earlier in this manual.

WARNING

Before firing the shotgun, review the **SAFETY RULES** and procedures for **CLEARING THE WEAPON** beginning on page 5 of this manual.

1. **Assume a good firing position** - Assume a correct firing position and stance for firing the shotgun. Ensure that your eye and ear protection are in place.
2. **On fire** – Place the cross-bolt safety button into the "fire" position (red ring is visible).
3. **Place finger on trigger** – Place the firing index finger on the trigger only once you have decided to actually fire a round down range. Place the pad of the firing index finger (the meaty portion located between the trip and the first joint) on the center of the trigger.
4. **Press the trigger** – Press the trigger straight to the rear at an even pace and with consistent pressure to release the cocked hammer and fire the chambered round. The trigger pull of the M1014 Combat Shotgun averages 6.2 pounds.
5. **Remove the finger from trigger guard** – Remove the finger from the trigger and outside of the trigger guard once you have finished firing or anytime you are moving. "Index" the trigger finger by keeping it on the receiver or front edge of the trigger guard of the weapon at all times when you are not firing the weapon.

NOTE

Always return the cross-bolt safety button to the "safe" position (the red ring is not visible), or clear the weapon once you have finished firing or are on the move.

IMMEDIATE ACTION

Immediate Action is the action performed immediately by the operator anytime there is an unscheduled or unanticipated interruption of the weapon's correct operation when a back-up weapon is unavailable to transition to. Immediate Action should be practiced to the point that it automatically occurs as a reflex action.

1. **Release and pull** – Fully release the trigger and pull again to attempt to fire the weapon.
2. **Depress shell release lever** – If the weapon does not fire after performing step 1 above, depress the shell release lever to release a round from the magazine onto the shell carrier.
3. **Pull and release** – Pull the bolt fully rearward and release to chamber a fresh round.

If the bolt locks to the rear, manually insert a single round into the shotgun through the ejection port and depress the bolt release button to chamber the round.

4. **Attempt to fire** – Pull the trigger and attempt to fire the chambered round.

If the weapon still fails to fire, transition to a back-up weapon, if available, or seek cover and perform Remedial Action as listed below. If the weapon does fire, Combat Reload the weapon as described earlier to bring the shotgun back to maximum capacity.

REMEDIAL ACTION

If, after performing Immediate Action, the weapon still fails to fire, perform Remedial Action. Remedial Action is the action taken to remedy the problem when Immediate Action proves ineffective. To perform Remedial Action, check for:

- An empty magazine.
- An obstruction in the chamber and/or receiver, i.e., an empty or ruptured case, a misfed shell, foreign matter, etc.
- A faulty magazine, jammed follower, dented or corroded tube or unserviceable spring.
- Bad ammunition (misshaped, bulged, corroded, gouged, etc.).
- Improperly assembled or incomplete weapon or magazine.
- Broken firing pin, hammer or other component part.
- Immobile (stuck) gas piston(s).

Correct any deficiencies that are found and resume firing. If the weapon still fails to operate correctly, clear the weapon and refer to the Trouble Shooting section in this manual, or evacuate it to your unit armorer for maintenance and repair.

OPERATOR DISASSEMBLY (Field Stripping)

Weapon

1. **CLEAR THE WEAPON!**
2. **Bolt forward** – Place the bolt group in the forward position.
3. **Remove accessories** – Remove accessories (sling, targeting devices, lights, etc.) from the shotgun.

NOTE

Disassemble the magazine only when absolutely necessary for major cleaning.

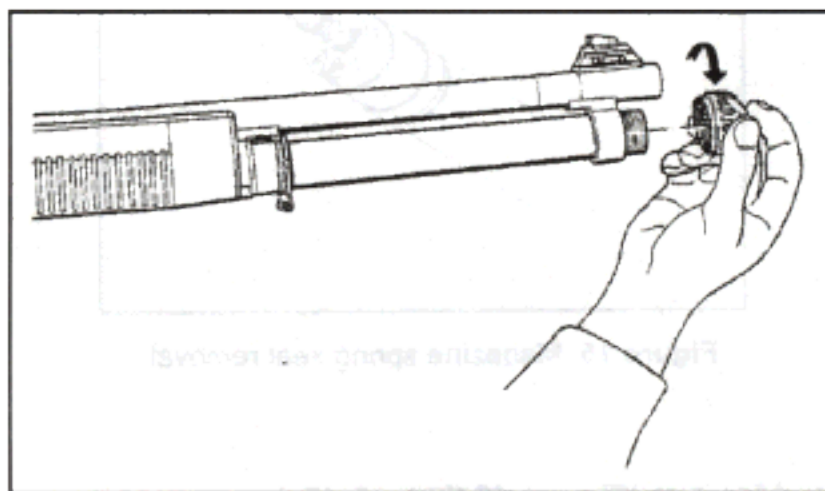


Figure 14. Removing magazine cap

4. **Unscrew magazine cap** – Remove the magazine cap by rotating it in a counter clockwise direction as viewed from the front of the weapon (Figure 14).

WARNING

If the magazine spring seal is worn, it may come out when the magazine cap is removed, thus unexpectedly ejecting the magazine spring.

WARNING

Insure that the muzzle end of the magazine is pointed in a safe direction during removal of the muzzle cap and the magazine spring seal ring. The components of the magazine are under considerable spring tension and may cause injury to you or bystanders if released during disassembly/assembly.

5. **Remove magazine components** – Remove handle from bolt group (**Figure 17**). Use the bolt handle to remove the magazine spring seal ring, the magazine spring, and follower from the magazine tube (**Figure 15**).

NOTE

Tap Magazine on a padded surface to remove the follower.

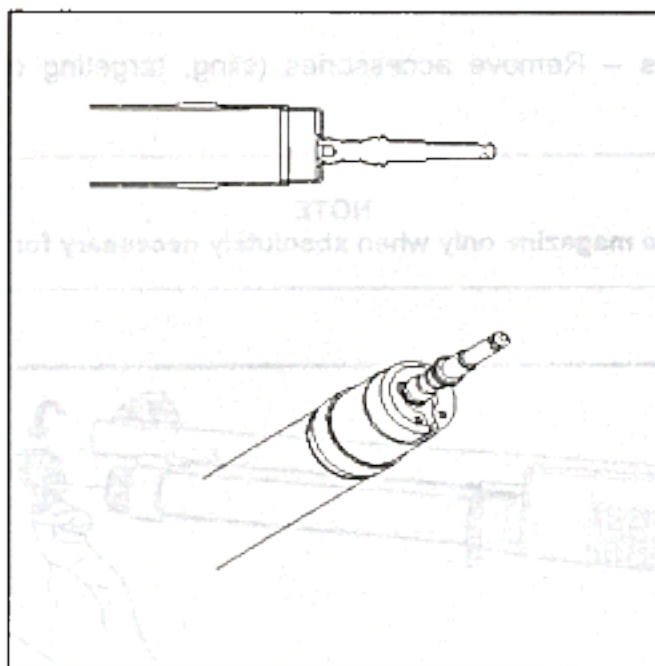


Figure 15. Magazine spring seal removal

6. **Remove barrel and forearm (Figures 16 through 16c)**
- A. Pull forward on the barrel and forearm to remove them as an assembly from the receiver.
 - B. Separate the two forearm halves from the barrel. Pull down on the rear end of the forearm halves to remove them from the barrel.
 - C. Separate the two halves of the forearm.

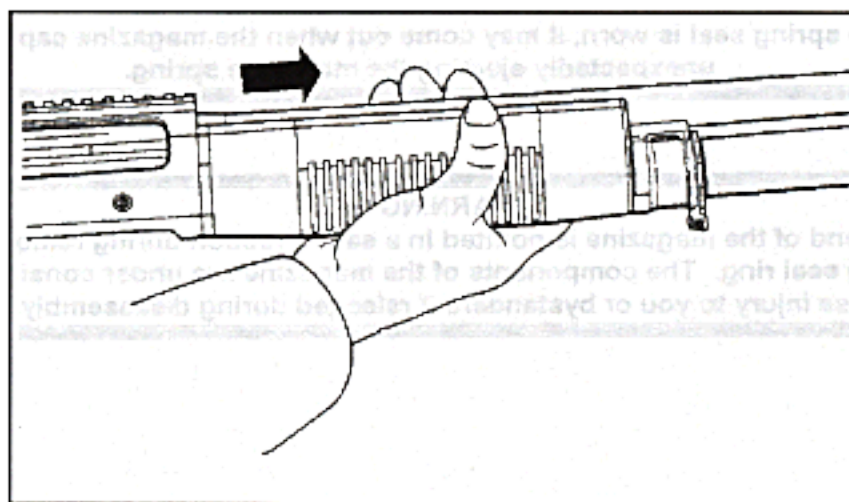


Figure 16. Removing the barrel with forearm from the receiver

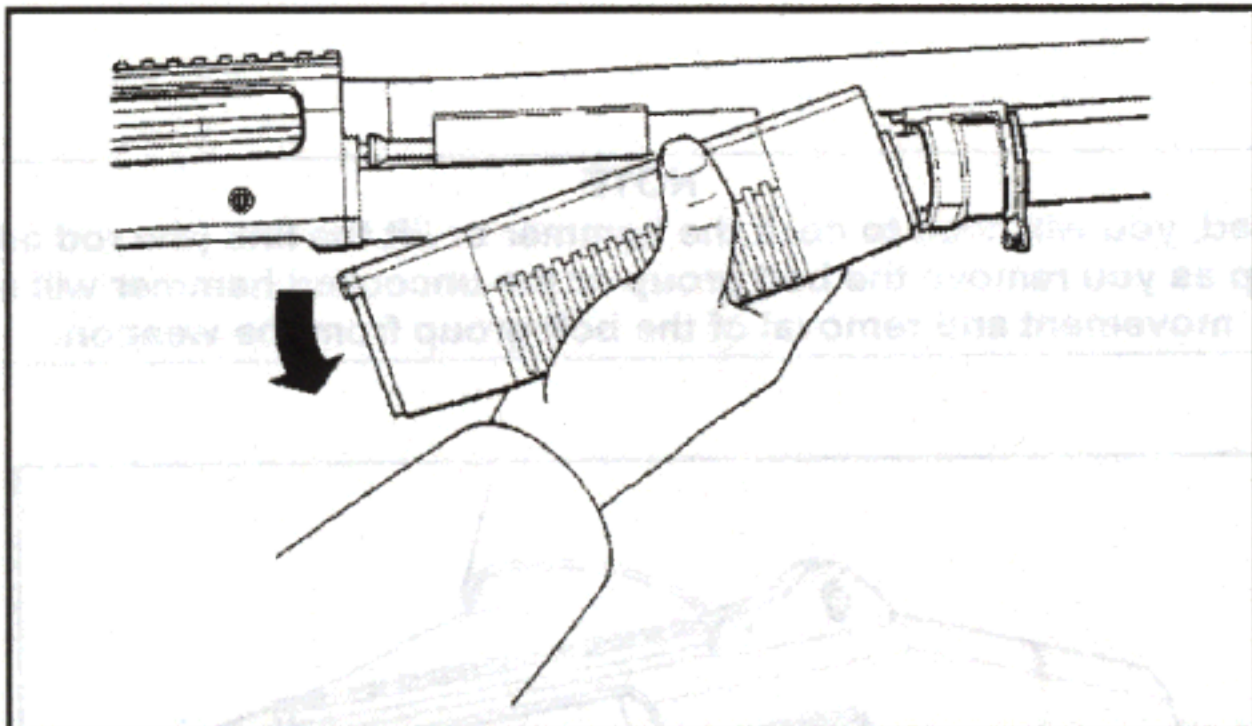


Figure 16a. Removing the forearm

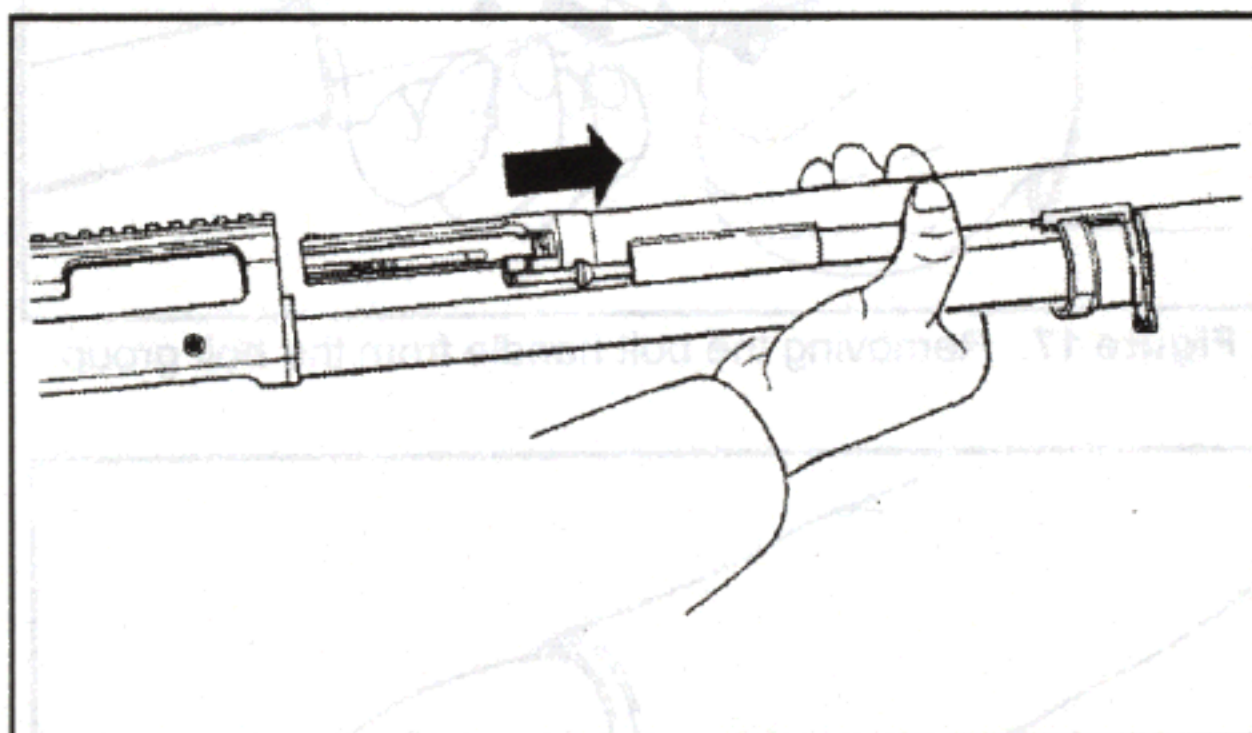


Figure 16b. Removing barrel

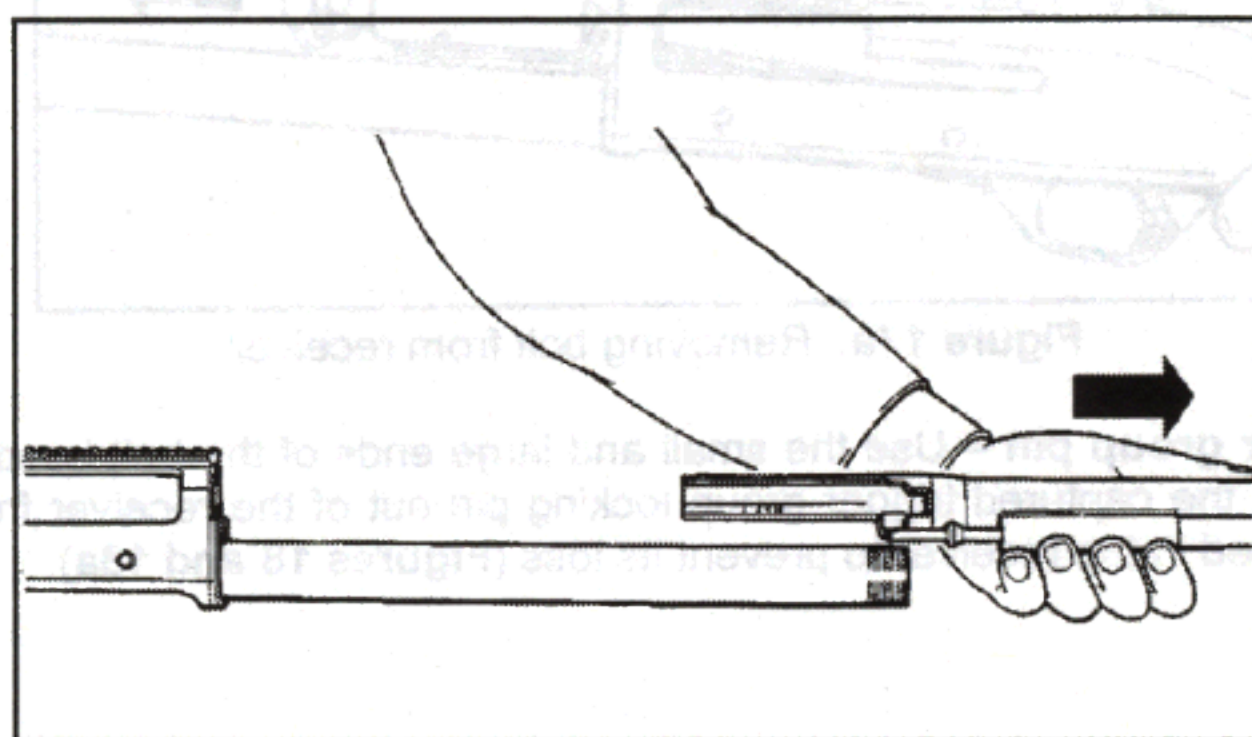


Figure 16c. Removing barrel

7. **Remove bolt** – Grasp the bolt handle and pull it out of the bolt carrier by pushing in and rotating it. Remove the bolt group from the receiver (**Figures 17 and 17a**).

NOTE

If the hammer is uncocked, you will need to cock the hammer or lift the link (the rod attached to the back end of the bolt carrier) up as you remove the bolt group or the uncocked hammer will impede the forward movement and removal of the bolt group from the weapon.

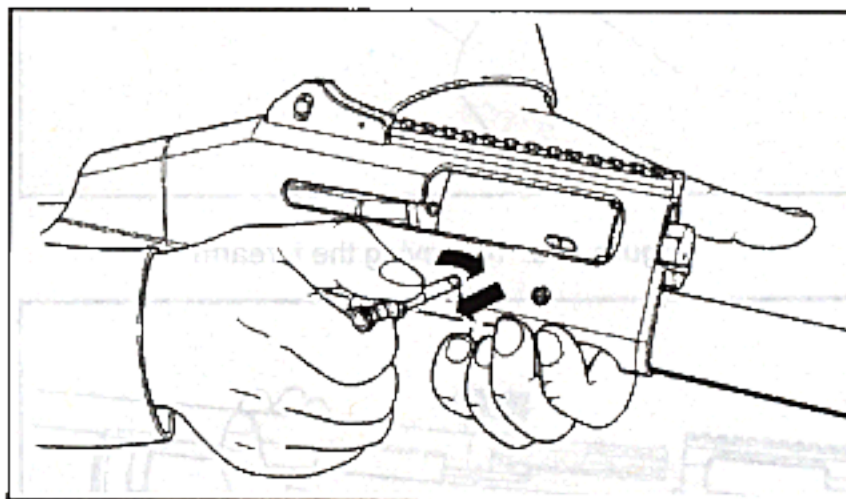


Figure 17. Removing the bolt handle from the bolt group

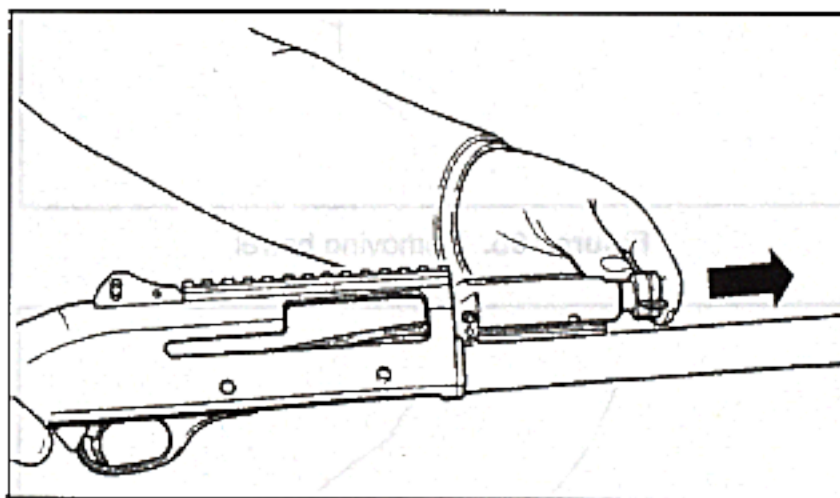


Figure 17a. Removing bolt from receiver

8. **Remove trigger group pin** – Use the small and large ends of the bolt handle as depicted below to partially push the captured trigger group locking pin out of the receiver from right to left. This pin will be retained in the receiver to prevent its loss (**Figures 18 and 18a**).

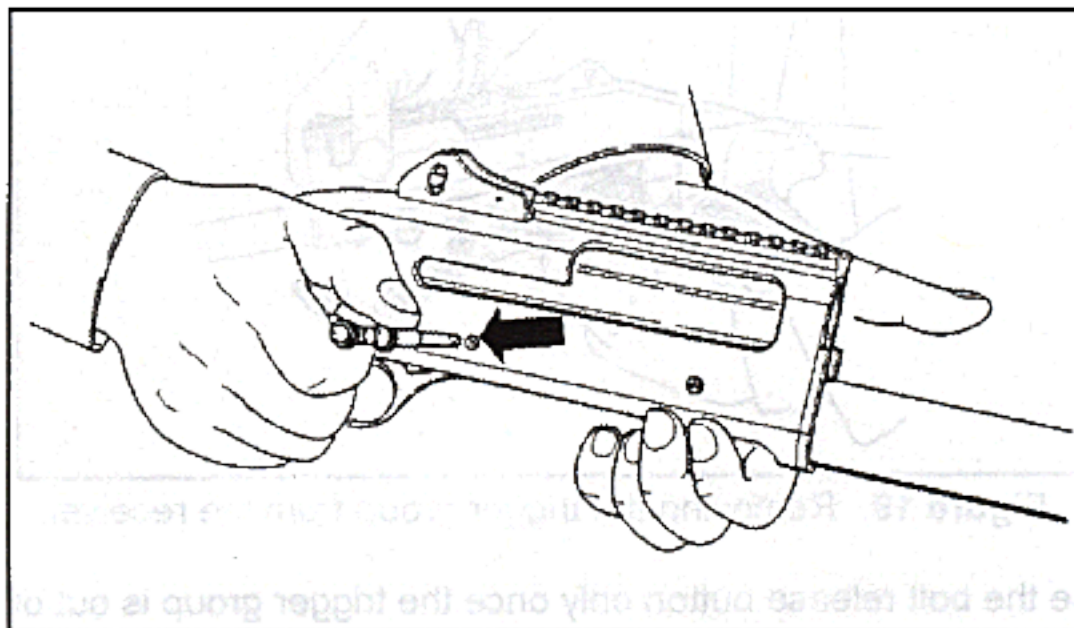


Figure 18. Removing the trigger group locking pin using the bolt handle

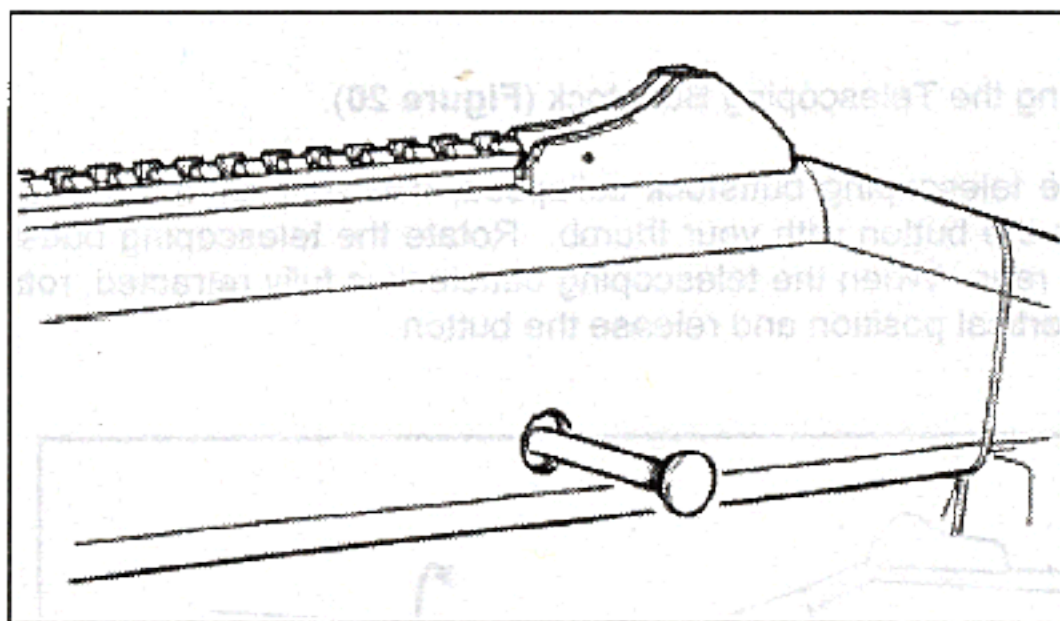


Figure 18a. Removing the trigger group locking pin
(trigger group locking pin in open position for trigger group removal/installation)

Remove trigger group (Figure 19)

- A. Depress and hold in the bolt release button.
- B. Grasp the trigger guard and pull the trigger group down and out of the receiver.

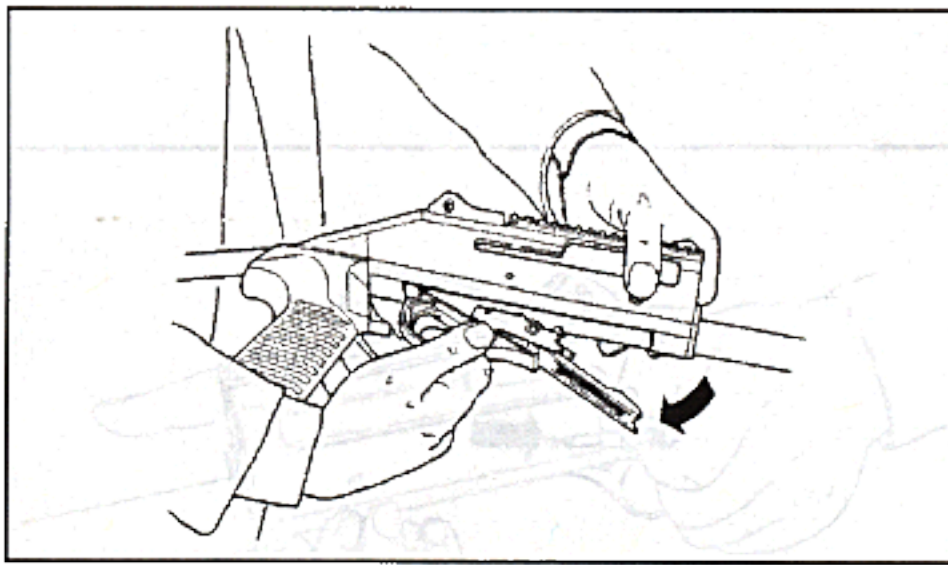


Figure 19. Removing the trigger group from the receiver

- C. Release the bolt release button only once the trigger group is out of the receiver.
- D. Push the trigger group locking pin back into the receiver to prevent it from being damaged (bent).

Extending/Removing buttstock

- A. Extending the Telescoping Buttstock (Figure 20).

With the telescoping buttstock collapsed, use your firing hand to grip the buttstock and depress the button with your thumb. Rotate the telescoping buttstock clockwise and pull it to the rear. When the telescoping buttstock is fully retracted, rotate it counter-clockwise to the vertical position and release the button.

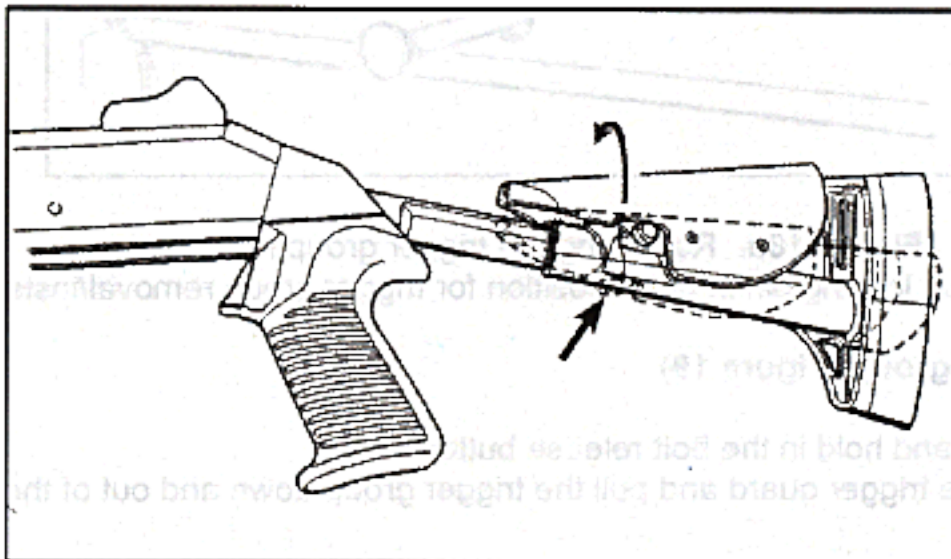


Figure 20. Extending the buttstock

NOTE

Keep button completely depressed while removing buttstock.

With the trigger guard removed

Starting with the telescoping buttstock extended, grip the telescoping buttstock with your firing hand and depress the button. Hold the button and rotate the buttstock module clockwise. Push the buttstock module in to the inscribed line on the recoil tube. When the inscribed line is reached by the forward edge of the collapsible buttstock module, rotate the telescoping buttstock counter-clockwise until the top of the telescoping module is aligned with the flat part of the recoil tube. Pull the telescoping buttstock to the rear, off the recoil tube.

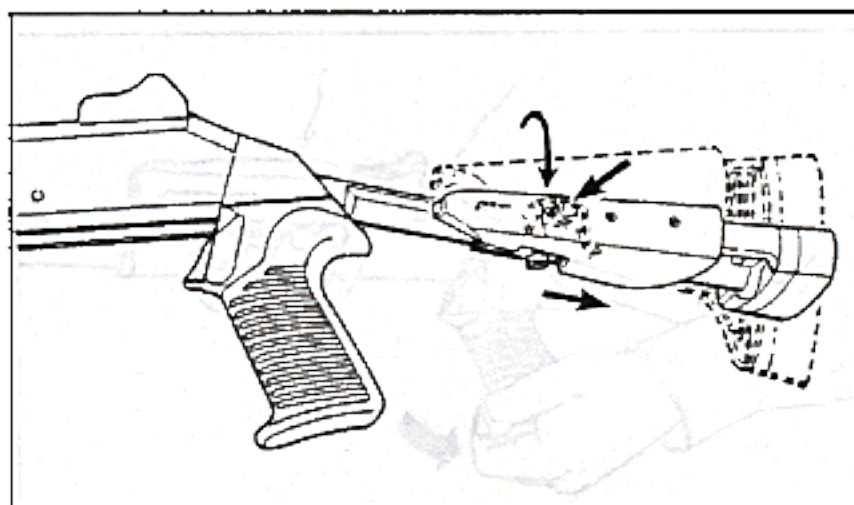


Figure 21. Rotating and removing telescoping buttstock module

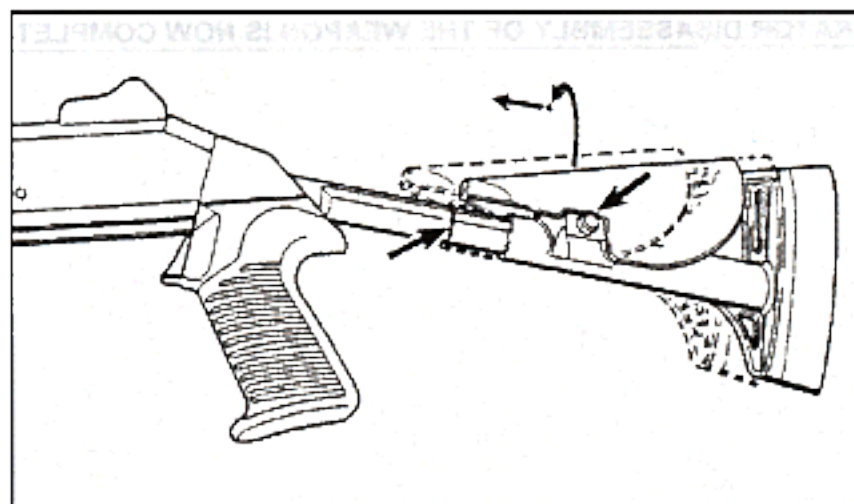


Figure 22. Rotating and removing buttstock

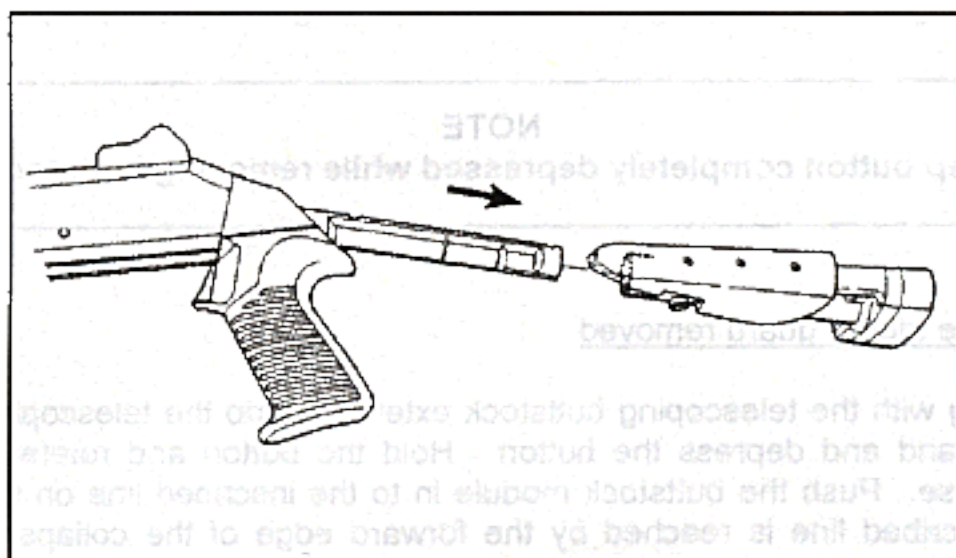


Figure 23. Removing buttstock

- C. Unscrew the pistol grip in a counter-clockwise direction until free. Remove the pistol grip to the rear of the recoil tube (**Figure 24**).

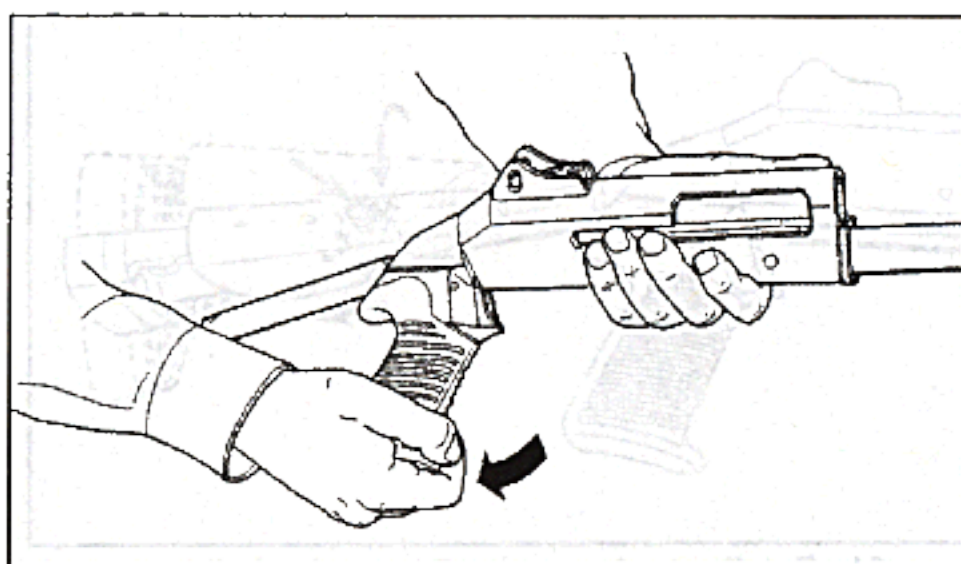


Figure 24. Removing detachable pistol grip

OPERATOR DISASSEMBLY OF THE WEAPON IS NOW COMPLETE!

1. Bolt Group

NOTE

DO NOT remove the extractor, link or bolt handle retaining pin during operator disassembly. It is not required to remove these parts for operator cleaning or maintenance.

- A. **Remove firing pin retaining pin** – Place a finger over the rear end of the firing pin while you remove the firing pin retaining pin from the right side of the bolt carrier (Figure 25).

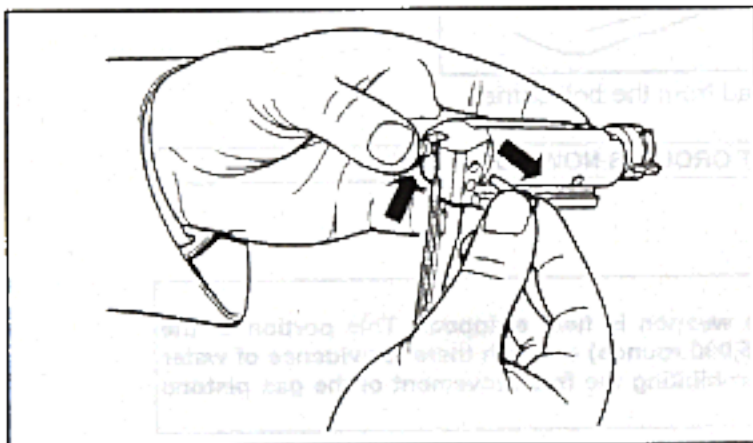


Figure 25. Removing the firing pin retaining pin

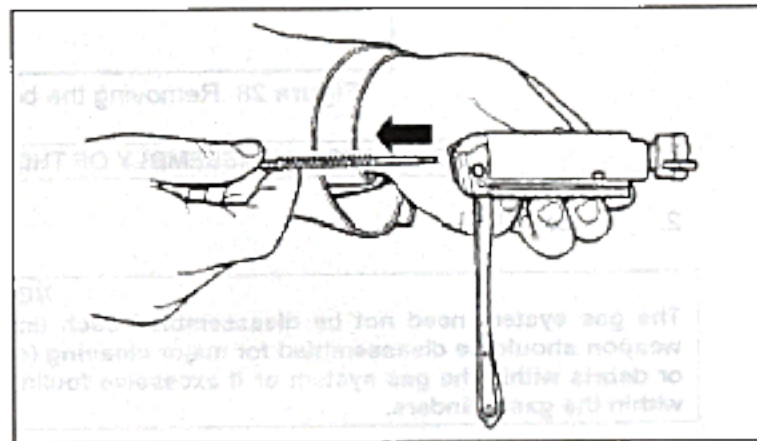


Figure 26. Removing the firing pin and spring

- B. **Remove firing pin and firing pin spring** – Lift the firing pin with firing pin spring out of the recess in the rear of the bolt carrier (Figure 26).
- C. **Separate firing pin spring and firing pin** – Separate the firing pin spring from the firing pin.
- D. **Cam pin** – Lift or shake the cam pin from the bolt assembly (Figure 27).

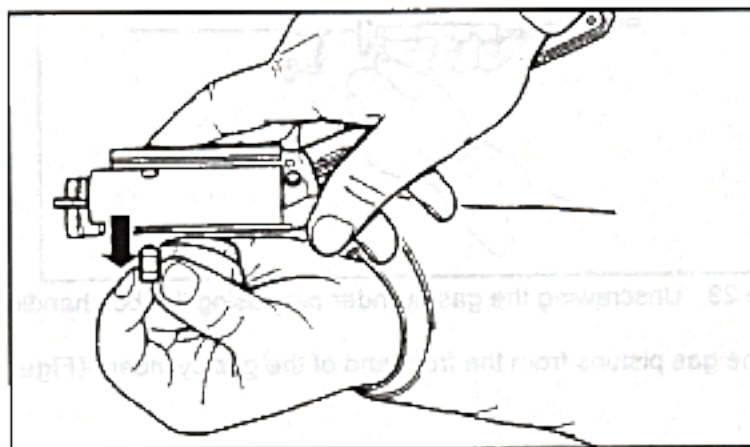


Figure 27. Removing the cam pin from the bolt assembly

- E. **Remove bolt head** – Pull the bolt head from the bolt carrier (Figure 28).

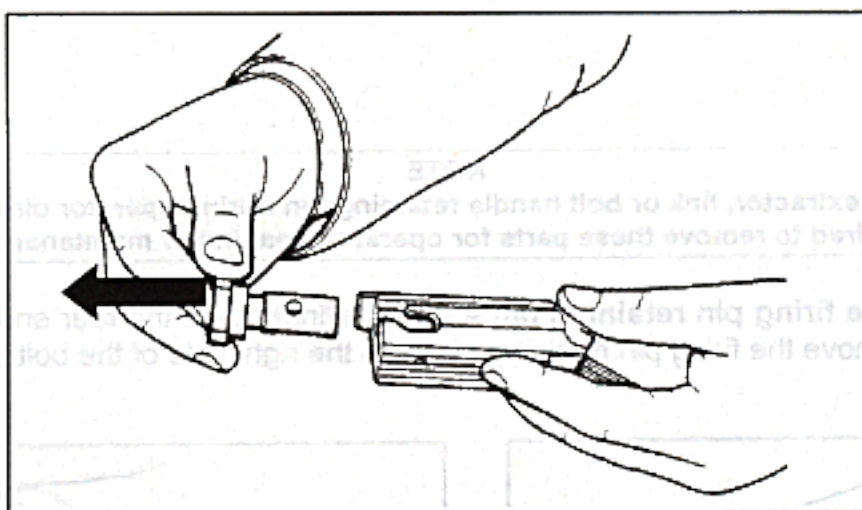


Figure 28. Removing the bolt head from the bolt carrier

OPERATOR DISASSEMBLY OF THE BOLT GROUP IS NOW COMPLETE!

2. Barrel

NOTE

The gas system need not be disassembled each time the weapon is field stripped. This portion of the weapon should be disassembled for major cleaning (every 5,000 rounds) or when there is evidence of water or debris within the gas system or if excessive fouling is prohibiting the free movement of the gas pistons within the gas cylinders.

- A. Using the bolt handle, remove the gas cylinder plugs by rotating them in a counter-clockwise direction viewed from the front of the barrel (**Figure 29**).

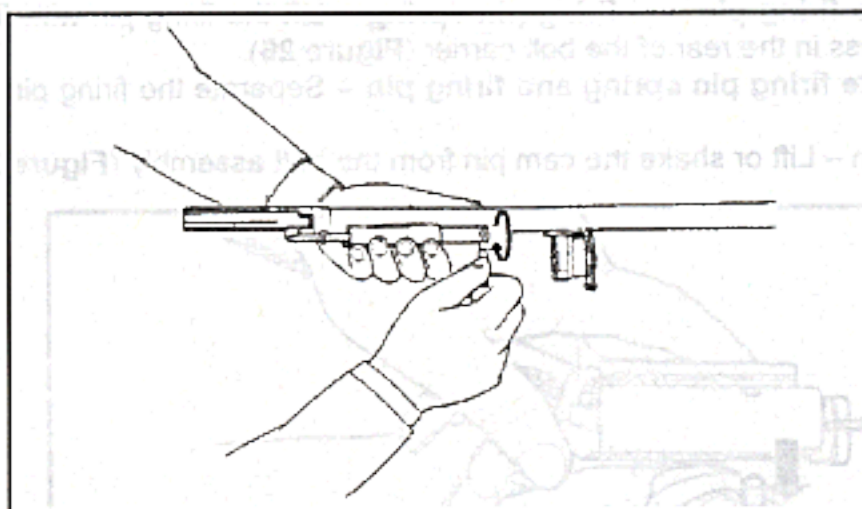


Figure 29. Unscrewing the gas cylinder plug using the bolt handle

- B. Remove the gas pistons from the front end of the gas cylinders (**Figure 30**).

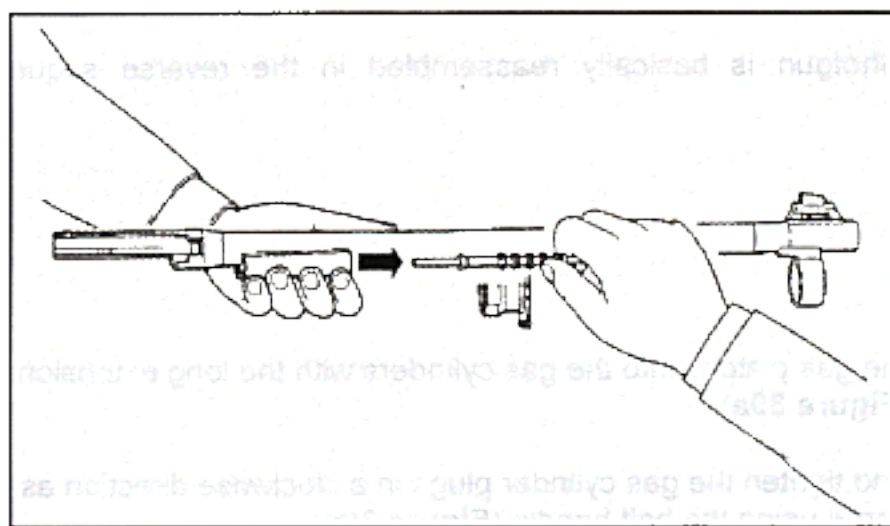


Figure 30. Removing the gas piston from the gas cylinder

OPERATOR DISASSEMBLY OF THE BARREL IS NOW COMPLETE.

IMPORTANT NOTICE

Operator disassembly of the M1014 Combat Shotgun is now complete. Only a trained armorer may proceed beyond this level of disassembly.

OPERATOR REASSEMBLY

The M1014 Combat Shotgun is basically reassembled in the reverse sequence of which it was disassembled.

Assembly Groups

1. Barrel

- A. Install the gas pistons into the gas cylinders with the long extension facing the rear of the barrel (Figure 30a).
- B. Install and tighten the gas cylinder plugs in a clockwise direction as viewed from the front of the barrel using the bolt handle (Figure 30b).

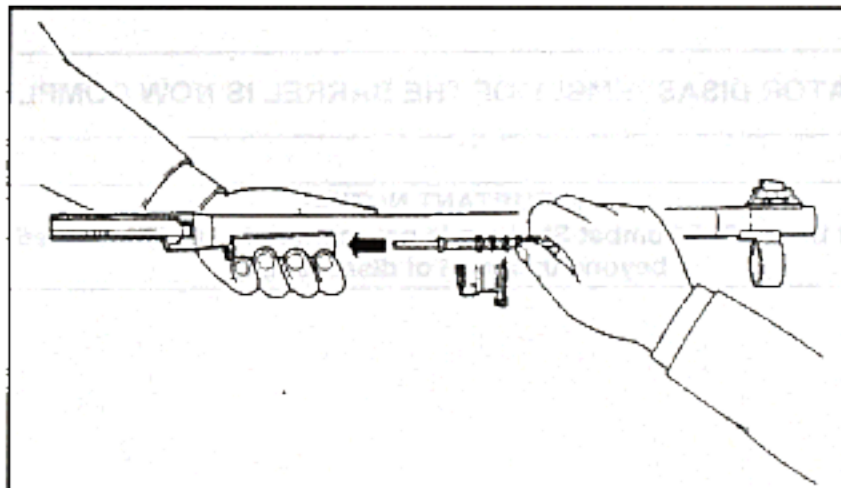


Figure 30a. Installing the gas piston

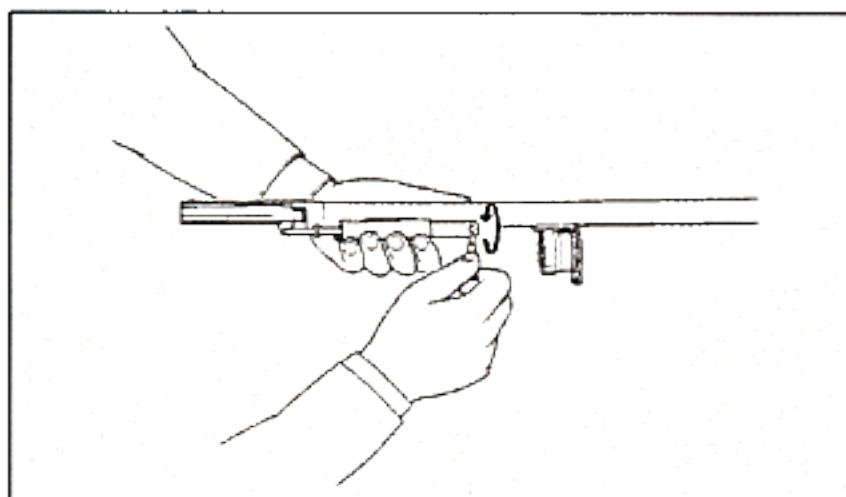


Figure 30b. Tightening the gas cylinder plug

2. Bolt Group

- A. **Install the bolt head** – Insert the bolt head into the front of the bolt carrier with the extractor to the right (Figure 31).

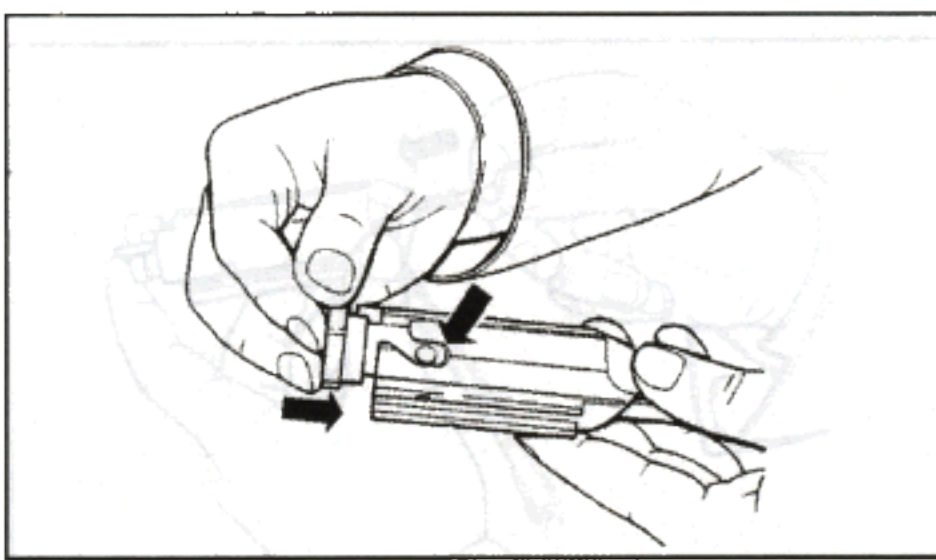


Figure 31. Installing the bolt head into bolt carrier

- B. **Insert cam pin** – Insert the cam pin into the bolt assembly through the hole in the bolt head so that the hole through the cam pin and index line on the top side of the pin run parallel with the bolt carrier (**Figure 32**).

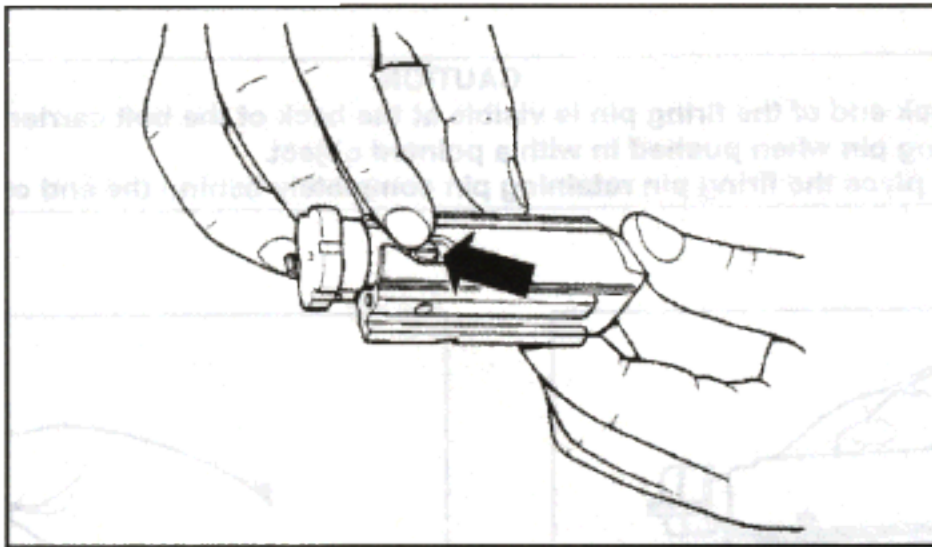


Figure 32. Installing the cam pin into the bolt group

- C. **Firing pin spring** – place the firing pin spring onto the front end of the firing pin.
- D. **Install firing pin with spring** – Insert the firing pin with spring into the hole in the back end of the bolt carrier (**Figure 33**).

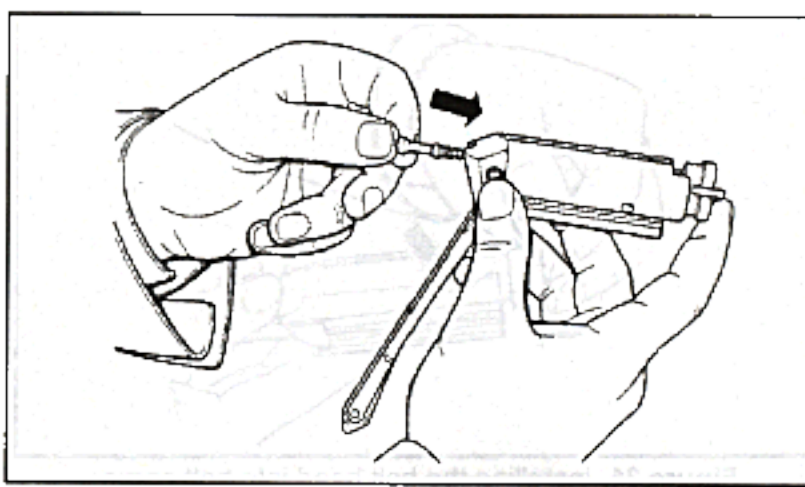


Figure 33. Installing the firing pin with firing pin spring into the bolt group

- E. **Install firing pin retaining pin** – Press in on the back of the firing pin with your finger against spring tension and install the firing pin retaining pin into the bolt carrier from right to left to secure the firing pin in place (Figure 34).

CAUTION

1. Insure that the back end of the firing pin is visible at the back of the bolt carrier and that there is free movement of the firing pin when pushed in with a pointed object.
2. Do not attempt to place the firing pin retaining pin completely behind the end of the firing pin.

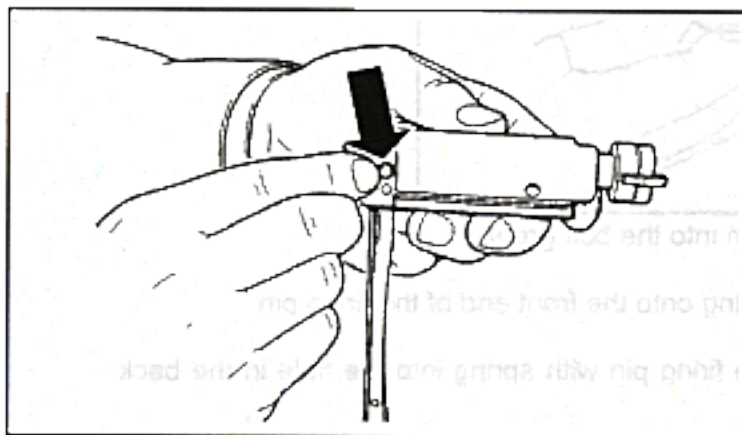


Figure 34. Installing the firing pin retaining pin

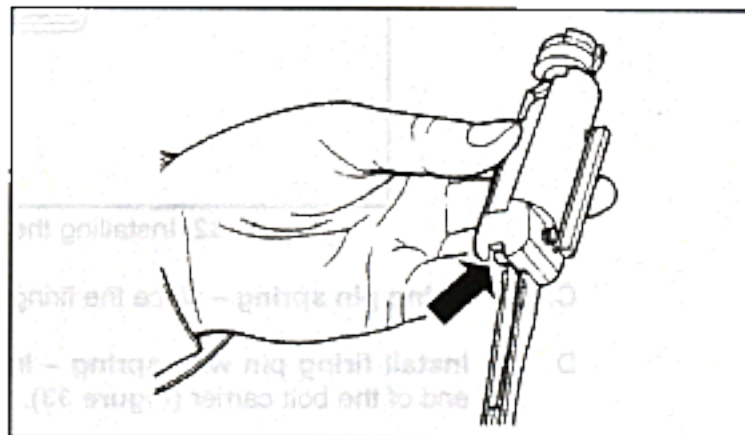


Figure 35. Firing pin visible in bolt carrier

OPERATOR ASSEMBLY OF THE BOLT GROUP IS NOW COMPLETE

Buttstock –

1. Installing the telescoping stock –

Install pistol grip (Figure 36).

- A. Place the pistol grip over the rear end of the recoil spring tube attached to the back of the receiver.
- B. Rotate the pistol grip onto the receiver in a clockwise direction as viewed from the rear. Continue to rotate the pistol grip until it is flush against the back end of the receiver and in a vertical position.

Installing the telescoping buttstock (Figures 36a and b).

Grip the telescoping buttstock with your firing hand and depress the button with your finger. Rotate the telescoping buttstock counter-clockwise until its top is aligned with the flat part of the recoil tube. Push the telescoping buttstock up the recoil tube to the inscribed line. Rotate the telescoping buttstock clockwise past vertical, and push it forward. Rotate the telescoping buttstock counter-clockwise and release the button.

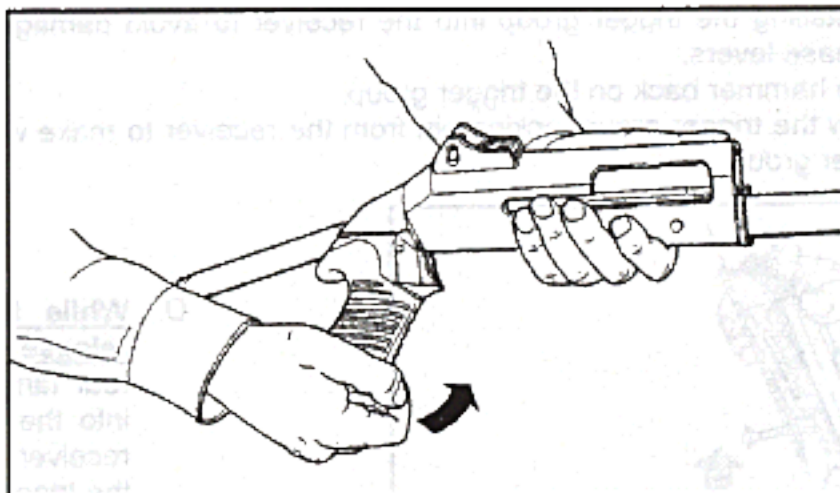


Figure 36. Installing the pistol grip

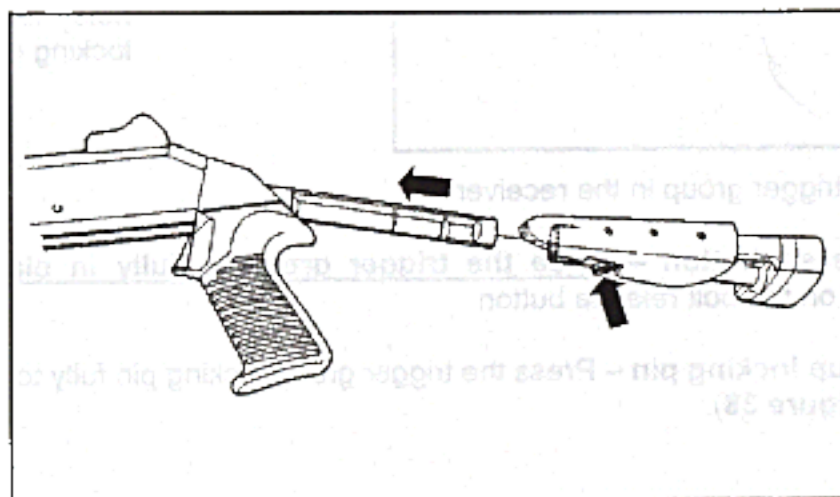


Figure 36a. Installing the buttstock

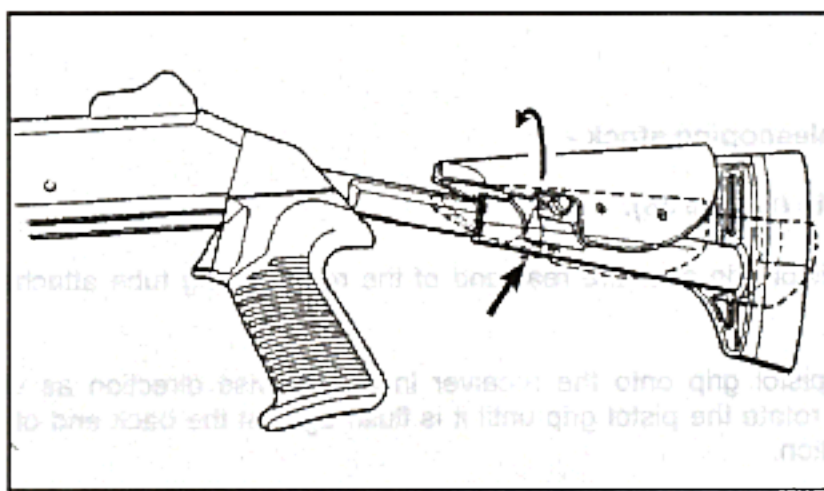


Figure 36b. Installing the buttstock

2. Trigger Group

- A. **Depress bolt release button (Figure 37)** – Depress and hold in the bolt release button while installing the trigger group into the receiver to avoid damaging the shell stop and shell release levers.
- B. Cock the hammer back on the trigger group.
- C. Withdraw the trigger group locking pin from the receiver to make way for the insertion of the trigger group.

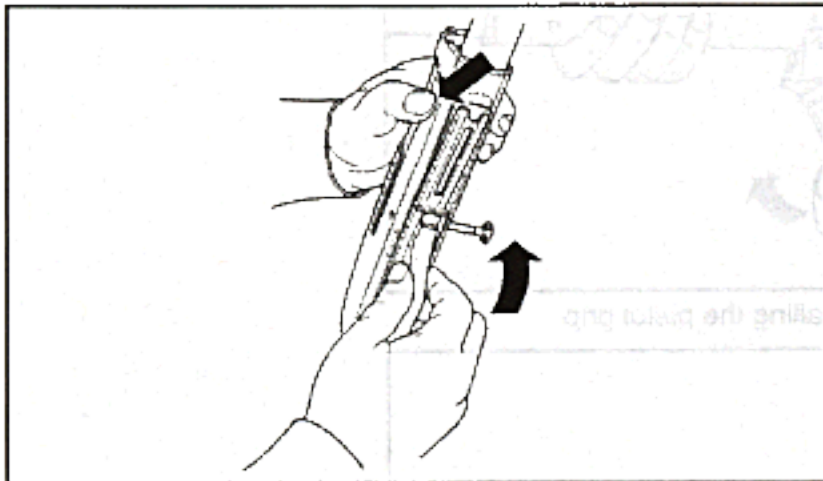


Figure 37. Installing the trigger group in the receiver

- D. **While holding in the bolt release button**, insert the rear tang of the trigger group into the opening for it in the receiver. Rotate the front of the trigger group upwards into place in the receiver until the hole for the trigger group locking pin aligns (Figure 37).

- E. **Bolt release button** – Once the trigger group is fully in place, you can release pressure on the bolt release button.

3. **Seat trigger group locking pin** – Press the trigger group locking pin fully to secure the trigger group in place (Figure 38).

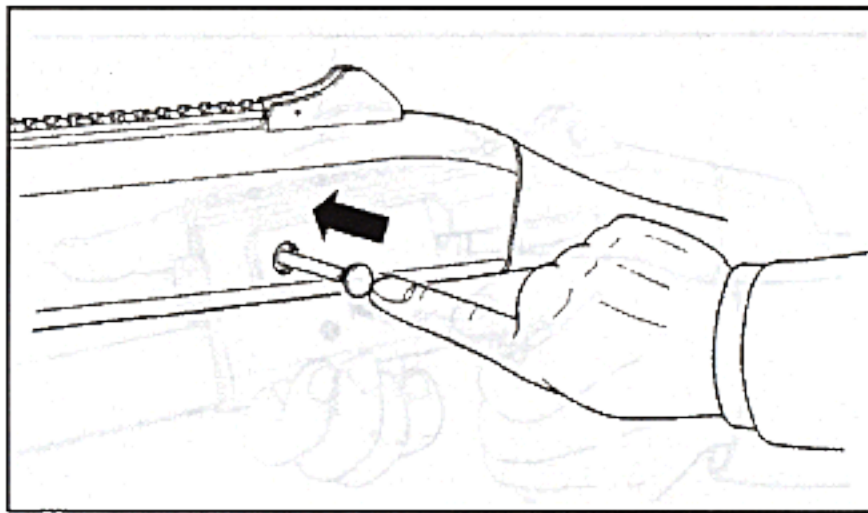


Figure 38. Push trigger group locking pin into secure trigger group

4. **Insert bolt group** – Install the bolt group into the receiver, link first, the bolt head should face forward (**Figure 39**).

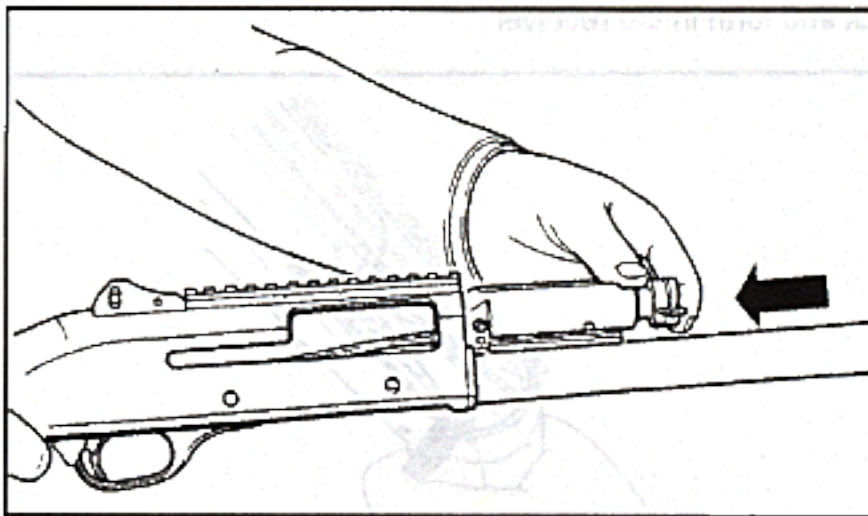


Figure 39. Installing the bolt group

5. **Install bolt handle** – Insert the bolt handle into the bolt carrier through the ejection port. Tug lightly on the bolt handle to insure that it is retained by the bolt handle détente and is secure in the bolt assembly (**Figure 40**).

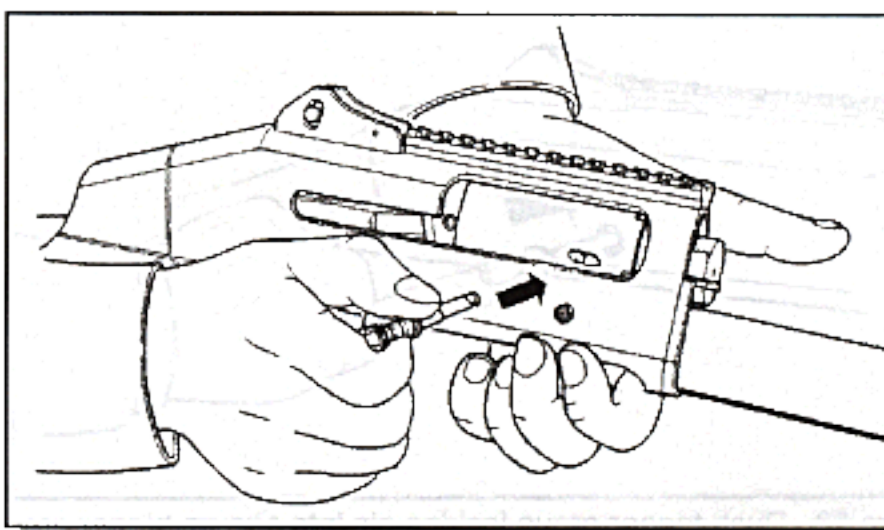


Figure 40. Inserting the bolt handle into the bolt group

Check bolt movement – Holding the shotgun parallel to the ground, push rearward on the bolt handle to insure that the link and recoil spring tube are aligned (**Figure 41**) and that the bolt can move freely back and forth in the receiver.

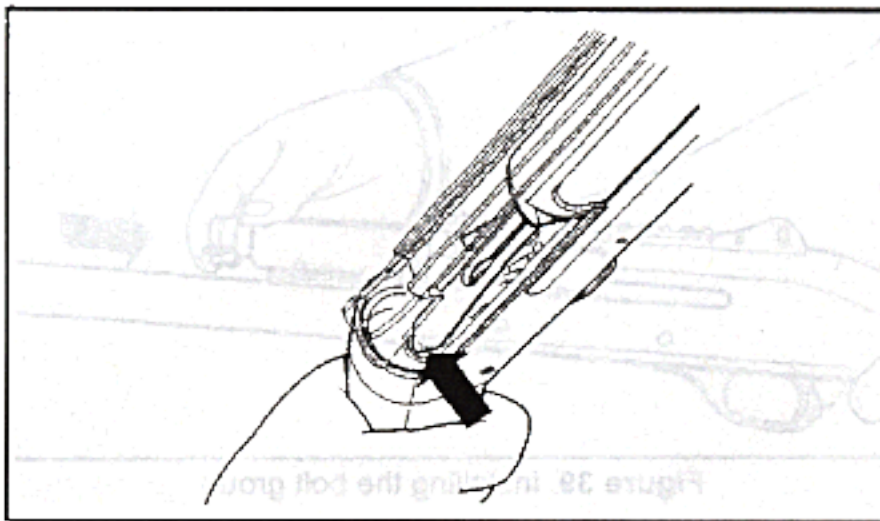


Figure 41. Correct positioning of the link at the opening of the recoil spring tube

7. **Magazine follower and spring**

- A. Insert the magazine follower into the end of the magazine tube with the red colored, smaller diameter end with raised tactile ring in first.
- B. Insert the magazine spring into the magazine tube behind the follower.
- C. Insert the magazine spring seal ring. Squeeze and press down from the top and rotating forward until the spring seal is set (**Figure 42**).

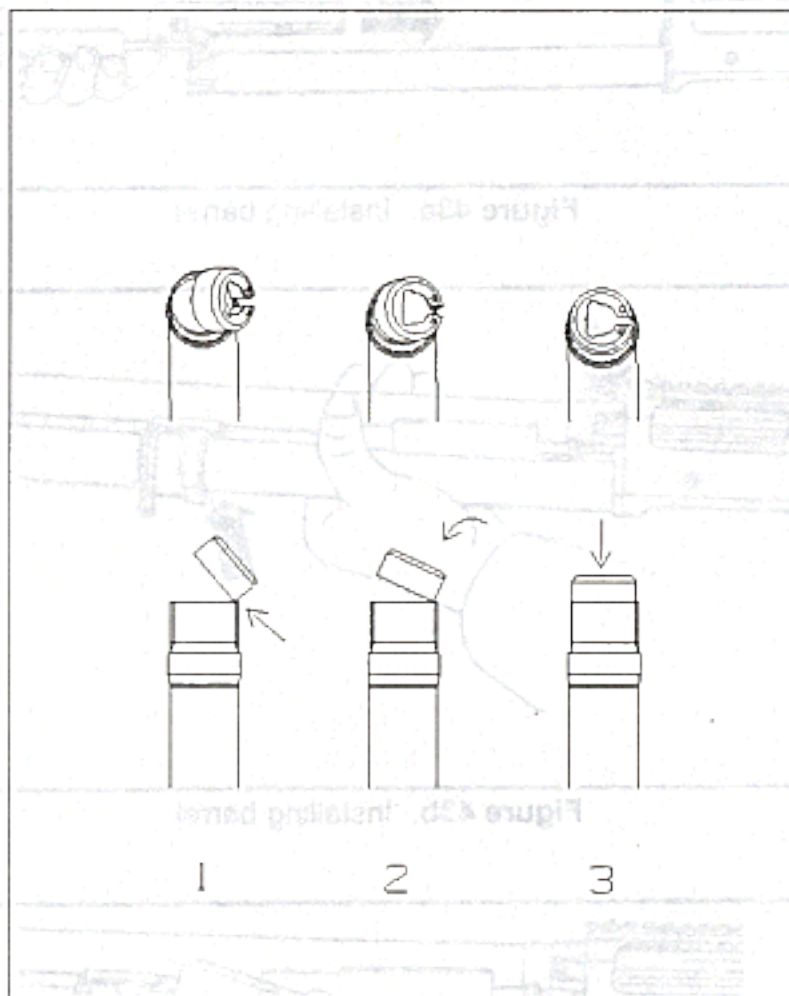


Figure 42. Installation of magazine spring seal ring

8. **Install barrel and forearm (Figures 43a, 43b, 43c, 43d)**

Slide the barrel over the magazine tube and into place on the receiver by:

- A. Holding the bolt group slightly rearward at least 1/4 inch using the bolt handle (**Figure 43a**).
- B. Slide the end of the barrel extension between the left side of the bolt head and inside of the receiver (**Figure 43b**).
- C. Ensure that the two gas pistons enter into the holes provided in the front end of the receiver.
- D. Position the right and left halves (they are marked inside) of the forearm together over the magazine tube and barrel. Insert the front tang of the forearm halves (**Figure 43c**) into the forearm-retaining band located on the rear barrel ring (hanger) on the barrel.
- E. Seat the barrel with forearm fully into the receiver so that all threads on the end of magazine tube are visible and the barrel is fully seated within the receiver.

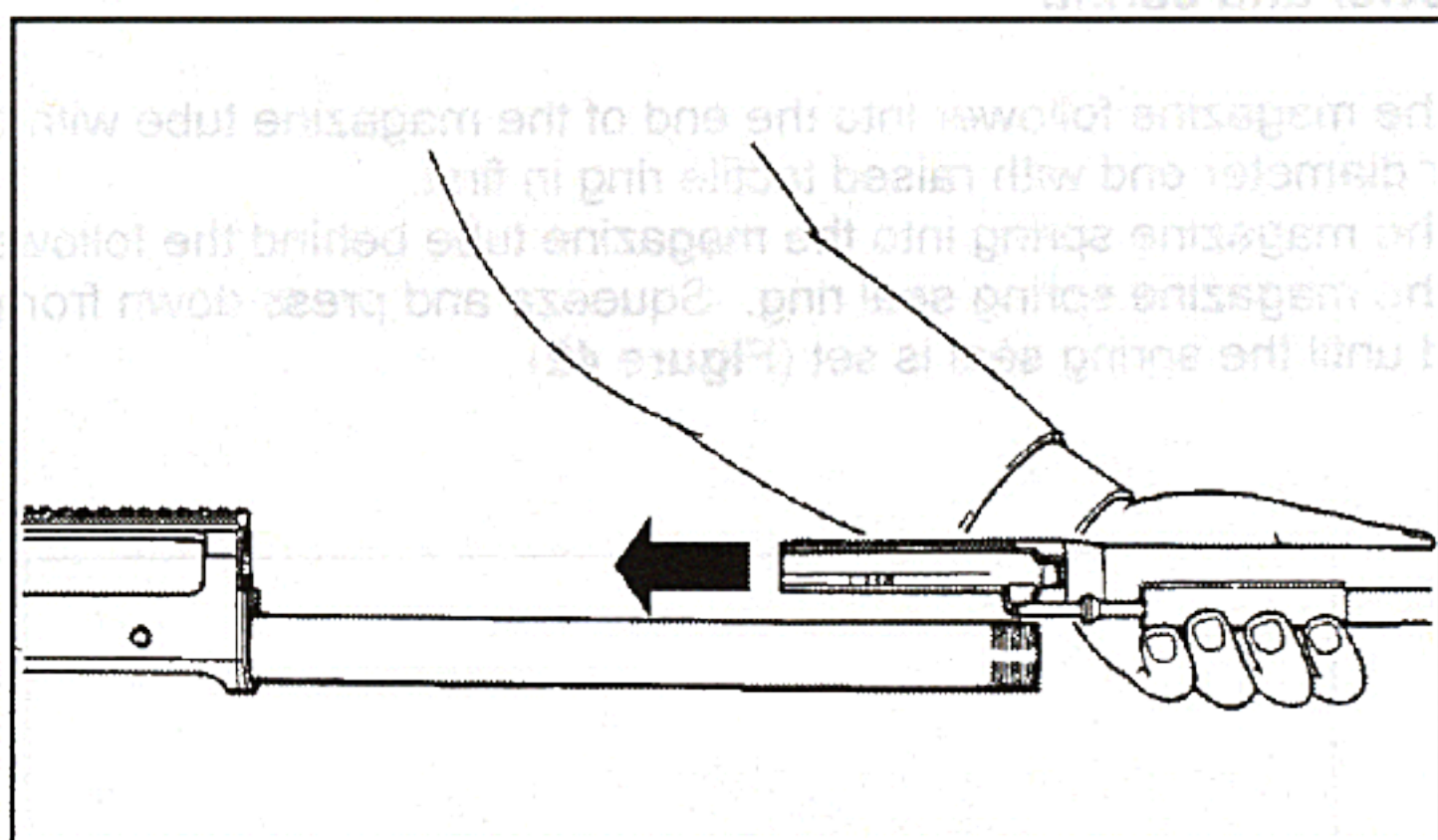


Figure 43a. Installing barrel

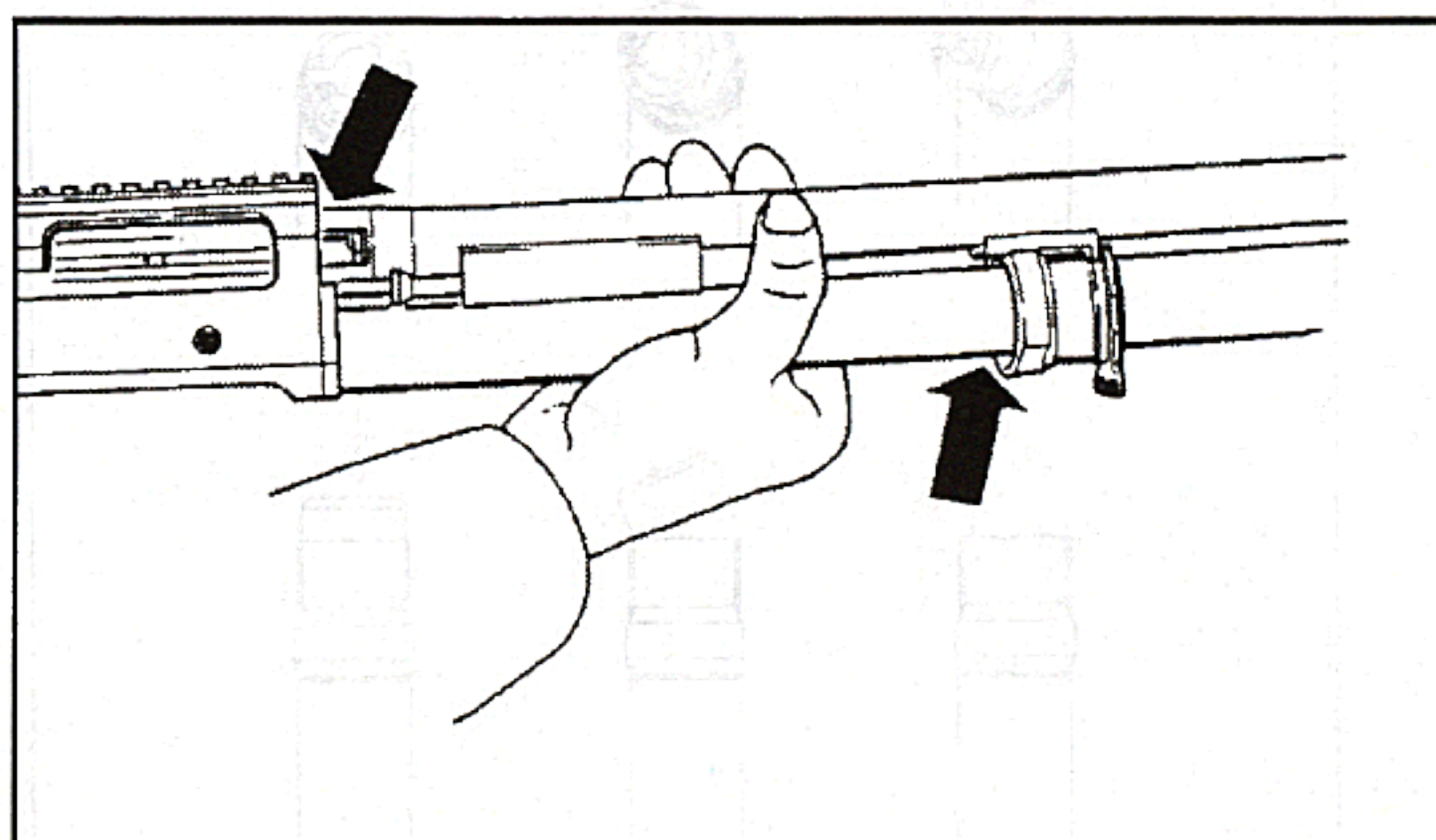


Figure 43b. Installing barrel

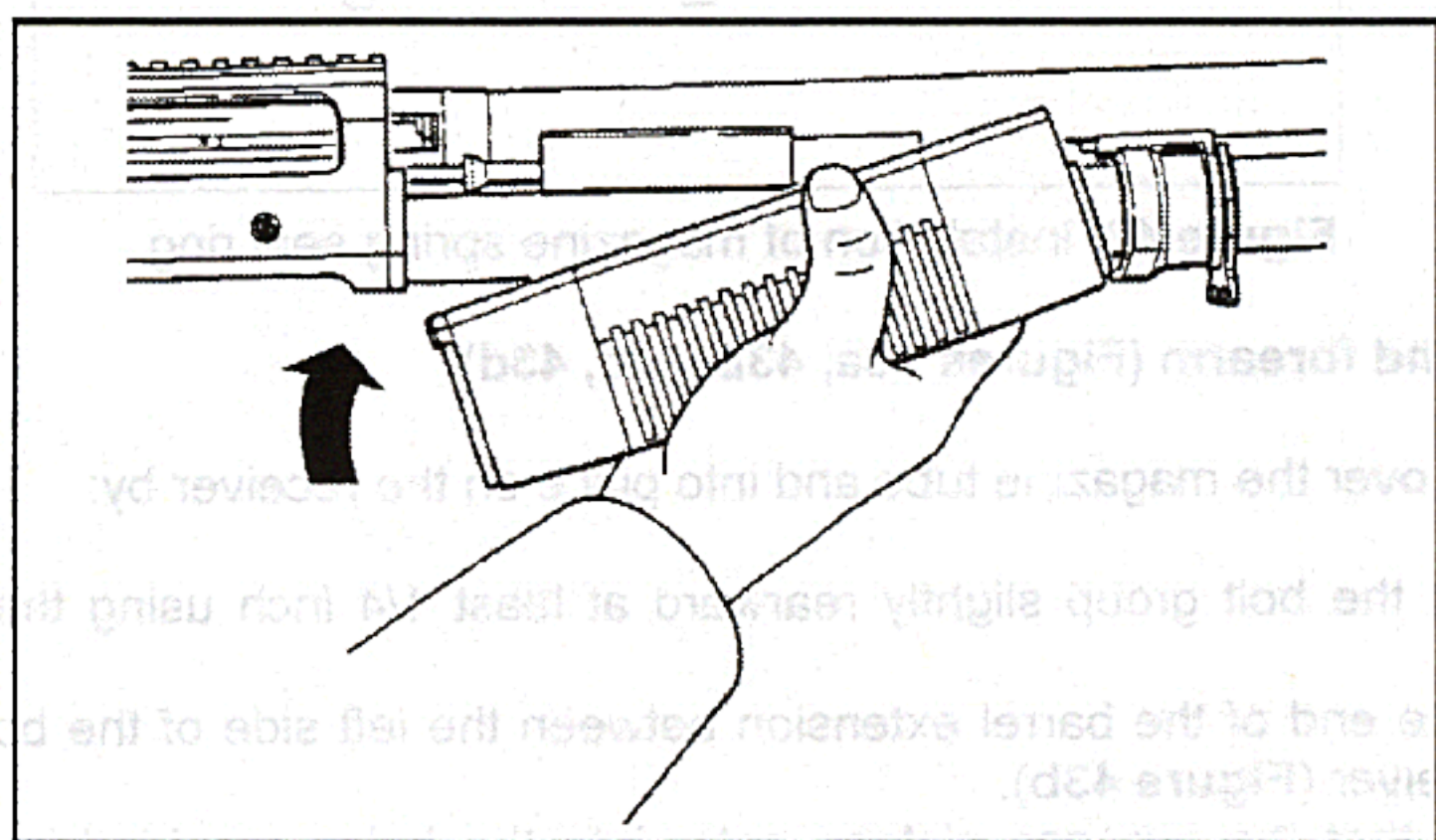


Figure 43c. Installing forearm

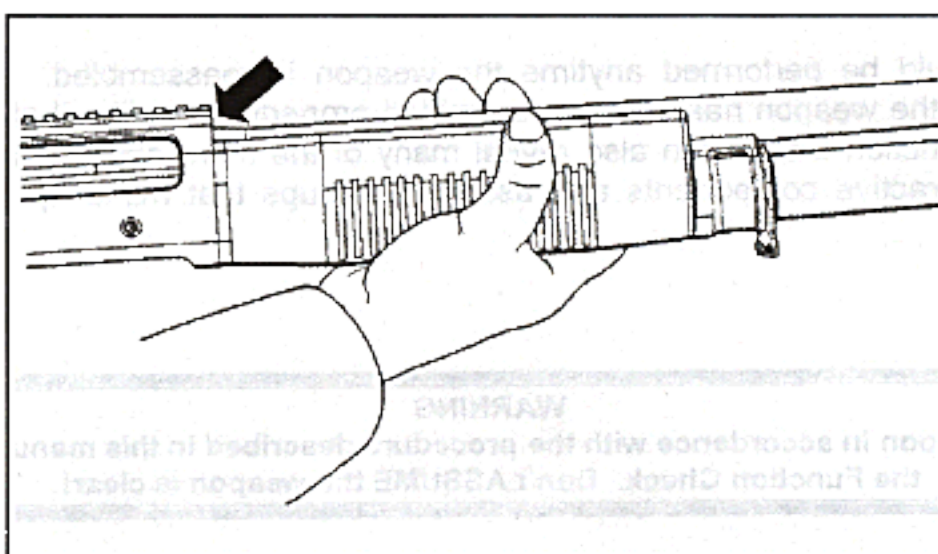


Figure 43d. Installing barrel with forearm onto the receiver

Install magazine cap – Screw the magazine cap tightly onto the end of the magazine tube. Hand tighten the cap to the last click to secure the magazine components and barrel assembly (Figure 44).

Install accessories – Reattach any accessories (sling, sighting devices, etc.) in accordance with the procedures included elsewhere in this manual.

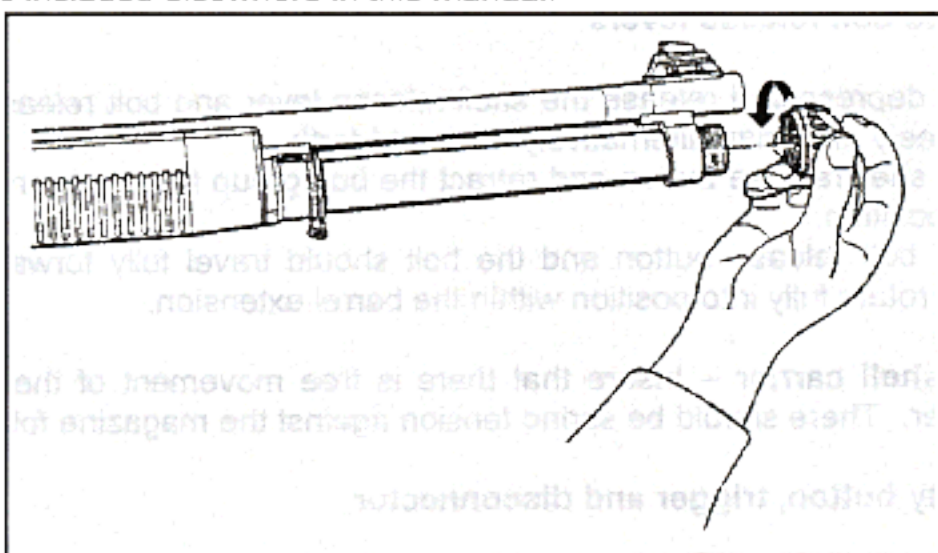


Figure 44. Installing the magazine cap

Clear the weapon, perform Function Check – Clear the weapon and perform a Function Check, as described below, to insure that the weapon is assembled properly and that all assembly groups operate as designed.

OPERATOR REASSEMBLY OF THE M1014 COMBAT SHOTGUN IS NOW COMPLETE

FUNCTION CHECK

A Function Check should be performed anytime the weapon is reassembled. This quick check will indicate whether or not the weapon has been reassembled properly and with all of the component parts. A properly executed Function Check can also reveal many of the more obvious malfunctions that could occur between the interactive components and assembly groups that make up the complete weapon system.

WARNING

ALWAYS "clear" the weapon in accordance with the procedure described in this manual BEFORE performing the Function Check. Don't ASSUME the weapon is clear!

1. CLEAR THE WEAPON!

2. Bolt group

Cycle the bolt back and forth checking for smooth unrestricted movement and forward spring tension exerted by the recoil spring.

3. Shell release and bolt release levers

- A. Alternatively depress and release the shell release lever and bolt release button. Insure that they move freely and snap alternatively back and forth.
- B. Depress the shell release button and retract the bolt group fully to the rear. It should be held in the open position.
- C. Depress the bolt release button and the bolt should travel fully forward. The rotating bolt head should rotate fully into position within the barrel extension.

4. Magazine and shell carrier – Insure that there is free movement of the shell carrier and the magazine follower. There should be spring tension against the magazine follower.

5. Cross-bolt safety button, trigger and disconnecter

- A. Retract and release the bolt to cock the hammer. Place the cross-bolt safety button in the "safe" position. Attempt to pull the trigger. **THE HAMMER SHOULD NOT FALL.**
- B. Place the cross-bolt safety button in the "fire" position. Pull the trigger **and hold the trigger back. THE HAMMER SHOULD FALL.**
- C. Retract the bolt to recock the hammer. Depress the bolt release button to close the bolt. Release the trigger. Listen for the small "click" when the hammer reconnects with the sear claw on the trigger.
- D. Pull the trigger. **THE HAMMER SHOULD FALL.**

If while performing a Function Check you find that the weapon is not functioning as designed, check the Trouble Shooting section in the back of this manual or see your unit armorer.

THE FUNCTION CHECK IS NOW COMPLETE!

OPERATING PRINCIPLE

General – There are eight general steps in the operating cycle of any conventional firearm. These steps are listed below and apply to the M1014 Combat Shotgun with its unique ARGO Twin System operation.

Operating Cycle

- **Firing** – Ignition of the cartridge.
- **Unlocking** – Actuation of the breech mechanism that results in the opening of the chamber.
- **Extraction** – Removal of the cartridge case from the chamber.
- **Ejection** – Expulsion of the cartridge case from the weapon.
- **Cocking** – The resetting of and storage of energy in the mechanism that provides the energy needed to ignite the primer of the live chambered cartridge.
- **Feeding** – The transference of the live cartridge from the feed mechanism in the direction of the chamber.
- **Chambering** – The insertion of the live cartridge into the chamber of the weapon.
- **Locking** – The actuation of the breech mechanism that results in the closing and sealing of the chamber.

M1014 COMBAT SHOTGUN OPERATION

1. Firing – The weapon is loaded, the hammer is cocked, and the cross-bolt safety button is set in the "fire" position. Squeezing the trigger releases the cocked hammer that is driven forward by the tension stored in the compressed hammer spring. The hammer strikes the firing pin and drives it forward against the resistance of the firing pin spring. The tip of the firing pin makes contact with and ignites the primer that in turn ignites the propellant within the shell. The expanding propellant gases exert pressure on all sides of the shell casing. As pressure rapidly builds, it begins to drive the projectile(s) forward down the bore. As the projectiles move forward down the bore, an equal amount of recoil force is directed rearward against the face of the bolt head through the base of the shell.

The recoil forces that act on the face of the bolt head are transmitted through the bolt head locking lugs into the barrel extension into which the rotating bolt head is locked. The recoil force is thus transferred into the barrel, then the receiver, into the buttstock, and back into the operator's shoulder.

As the projectile(s) move past the twin gas ports in the barrel just forward of the chamber, gas is directed into the gas cylinders. As this gas expands within the gas cylinders, it forces the gas pistons rearward through the holes in the front of the receiver and against the front of the bolt carrier. This occurs with sufficient force to push the bolt carrier back away from the bolt head and against the forward pressure exerted by the recoil spring.

If excessive gas pressure (greater than what is required to cycle the bolt) is present within the gas system, the gas plug relief valves within the gas plug are pushed forward against the gas plug compression spring. This action opens a gas relief port in the gas plug that vents the excess gas forward and out of the front of the forearm. This gas relief port is closed automatically by the compression spring once the gas pressure drops to a predetermined level within the gas system and bore.

2. Unlocking – As the bolt carrier travels rearward, the bolt head is rotated in a clockwise direction by the action of the cam pin as it travels through the camming groove in the bolt carrier. Only once the two locking lugs on the bolt head are fully rotated clockwise into an unlocked position out of the barrel extension can the entire bolt group begin to travel rearward. The calculated delay from the moment of cartridge ignition until the bolt head unlocks from the barrel extension provides sufficient time for the projectile(s), and wad or sabot if applicable, to exit the muzzle of the Combat Shotgun and for the gas pressure in the barrel and chamber to drop to a safe level. This design insures that the bolt group keeps the chamber closed and locked until the projectile(s) has cleared the muzzle of the weapon.

At the same moment that the hammer strikes the firing pin, the hammer cap strikes the tab on the shell release lever. The front tang of the shell release lever actuates the rear end of the shell stop. This action allows a single shell to slip from the magazine tube onto the waiting shell carrier. The pressure of the rim of the round on the shell stop immediately moves the front of the shell stop back into position to prevent the next round from exiting the magazine tube. The compressed magazine spring moves the next round into feeding position against the front end of the shell stop.

3. **Extraction** – As the bolt group recoils rearward, the fired hull is extracted from the chamber by the extractor holding onto the rim of the shell. The extractor spring holds the extractor in position on the rim of the fired hull during extraction and ejection.

4. **Ejection** – Ultimately, as the bolt group travels rearward, the rim of the shell strikes the ejector that is fitted to the barrel extension and located across the bolt head from the extractor. This causes the empty hull to be ejected out of the open ejection port. The bottom of the bolt carrier strikes the breech bolt latch, forcing it rearward against the carrier spring. This action lifts the shell carrier which in turn transports the next live shell up into a feeding position in the bolt's path. If the magazine is empty, the shelf on the breech bolt latch engages in the notch on the bottom side of the bolt carrier to hold the bolt open.

5. **Cocking** – By now, the bolt group has traveled fully to the rear in the receiver. Having done this, the link attached to the rear of the bolt carrier has forced back the recoil plunger and compressed the recoil spring. At the same time, the bolt carrier has depressed the hammer back against the hammer spring into a position where it can be retained in a cocked position by the sear claw on the trigger (or the disconnecter if the trigger is still being held rearward by the operator).

6. **Feeding** – The compressed recoil spring releases its stored energy by pushing the bolt group forward after the recoil stroke is complete. As the bolt group continues forward, the bolt head makes contact with the live shell waiting on top of the raised shell carrier. The rim of the live round slips up onto the smooth face of the bolt head and under the claw of the extractor. The continuing forward advance of the bolt group allows the breech bolt latch to return to its forward position with the help of the compressed carrier spring. This action positions the shell carrier back down ready to receive the next round from the magazine tube.

7. **Chambering** – As the bolt group travels forward during the last leg of its trip, the live shell is fed fully into and supported by the chamber of the shotgun.

8. **Locking** – The front face of the bolt head strikes the rear face of the barrel. The bolt carrier continues forward causing the cam pin to be forced back through the camming groove in the bolt carrier. This camming action causes the bolt head to rotate counter-clockwise. The two locking lugs on the bolt head engage in the recesses in the barrel extension locking the bolt and sealing the breech. As the bolt carrier comes to a stop within the receiver, the gas pistons are pushed forward and repositioned by the bolt carrier within the gas cylinders.

The M1014 Combat Shotgun is now ready for the chambered round to be fired and the cycle begins again.

SAFETIES

There are a total of four safeties incorporated into the design of the M1014 Combat Shotgun, one active in nature (the manual cross-bolt safety button) requiring action by the operator, the rest passive requiring no actuation by the operator.

1. **Cross-bolt Safety Button** – The only active safety on the M1014 Combat Shotgun, this manual safety acts to prevent the release of the cocked hammer should the trigger be pulled when the weapon is set on "safe". This safety is located on the trigger group directly to the rear of the trigger and is actively actuated by the operator. The safety button can be removed and reversed by the armorer for use by both right and left-hand users if necessary. Production shotguns are delivered with the safety button set up for use by right-handed operators (red ring is visible on the left side of the weapon when set on "fire").

The safety button is set on the "safe" position when the red painted ring on the button is not visible. The safety is in the "fire" position when the red painted ring is visible. When the cross-bolt safety button is set in the "safe" position (the red ring is not visible), the solid portion of the safety axle blocks the movement of the trigger. The disengagement of the sear claw on the trigger from the hammer if the trigger is pulled, and thus the subsequent release of the cocked hammer is thus prevented.

Even when set in the "safe" position, the cross-bolt safety button still allows the weapon to be loaded and unloaded and the bolt to be retracted and released.

2. **Disconnecter** – The disconnecter is a passive safety controlled by the trigger mechanism. No operator involvement with this safety is required for it to function. This safety is located inside the trigger mechanism and is integral with the trigger group. The disconnecter prevents the weapon from firing more than one shot per trigger pull. The function of the disconnecter insures that even if the trigger is held rearward after a round is fired or while a live round is being chambered, the disconnecter will catch the hammer and prevent it from following the bolt group forward and possibly igniting the chambered round.

3. **Inertia Firing Pin** – The firing pin arrangement used in the Combat Shotgun is designed to prevent inertia firing pin movement. Surrounding the firing pin is a coil spring that prevents the firing pin from moving forward unless it is struck by the hammer from a fully cocked position. This safety is a passive safety device located in the bolt group of the Combat Shotgun and requires no actuation by the operator. The inertia firing pin spring helps to prevent the weapon from firing during loading or when the weapon is dropped.

4. **Bolt Group Design** – The design of the M1014 Combat Shotgun bolt group consisting of a separate bolt head and bolt carrier separated by a small gap. When unlocked, this gap prevents the firing pin from striking the primer of the chambered round unless the bolt group is fully locked forward and is thus considered a passive safety. Unless the bolt group is properly locked forward, the firing pin is simply too short to reach all the way through the entire length of the unlocked bolt group and reach the primer of the chambered round.

This safety system prevents the Combat Shotgun from firing a chambered round if the hammer follows the bolt forward, if the bolt is not fully locked, or during manual release of the bolt group. It also helps prevent a drop or impact induced ignition of the primer.

CAUTION

In order for the inertia firing pin safety to function as designed, it is necessary for the operator to remember to install the firing pin spring in the bolt group during reassembly.

OPERATOR CLEANING

The functional performance of any mechanical device varies greatly based on the quality and frequency of the maintenance performed on that item. Firearms are no exception. The operator spends most of the time with the weapon and therefore has the best opportunity to perform the necessary upkeep required to insure top performance at all times.

Like any job the task is accomplished more efficiently when the right tools and supplies are on hand for the work to be completed. Even a very fouled combat shotgun can be totally cleaned in 10-15 minutes with the right cleaning materials. The unique Benelli Auto-Regulating Gas Operated (ARGO) Twin System shoots very cleanly in comparison to the more conventional gas and recoil operated weapons.

Some items that will make regular and thorough cleaning of the M1014 Combat Shotgun and all types of weapons easier and less time consuming include:

- **Solvent tank** – A solvent tank where the parts can be immersed in and scrubbed will save a great deal of time and will also remove fouling that cannot be reached by hand with rags and swabs. You can fashion your own solvent tank from locally available supplies or use the services of commercial companies that rent and sell solvent tanks and washers. These companies will even exchange the solvent on a regular basis for a small fee. "Varasol" solvent, available locally, is a good kerosene-based solvent that works well for cleaning firearms such as the M1014 Combat Shotgun. The ultimate in easy mechanism cleaning is the "Ultrasonic" cleaner that uses the winning combination of solvent and sonic vibration to clean fouled parts.
- **Compressed air** – Compressed air from a stationary or portable air compressor is also very helpful to remove fouling, loose debris, solvent, and to evenly spread and remove excess lubricant. It saves a lot of elbow grease, rags and swabs.

CAUTION

Remember to always wear eye protection and gloves when working around a solvent tank or compressed air. Use hearing protection when cleaning with compressed air to avoid hearing damage resulting from the high frequency noise produced with compressed air through a nozzle.

- **Cleaning kit** – Nothing is more important for cleaning in the field or back in garrison than a good cleaning kit containing the right supplies and brushes specific to the weapon being cleaned. The provided modular kit, part number 410-8, NSN 1005-01-455-0565, contains the following items:

#	NSN	Part	Description
1	1005-01-457-5701	911-8	Shotgun Soft-Pak Case
2	1010-01-445-6503	404-5	Tips, Brass
3	1005-01-457-3255	100-P-1	Patch Saver
4	1005-01-445-6518	512	Brush
5	1005-01-449-8934	C-30-5	Rod, Cleaning 30"
6	1005-01-449-9282	345	Brush, Bore
7	1010-01-445-6728	970	Patches
8	1005-01-445-6799	324 K	Short Receiver Brush
9	1005-01-449-8908	105-5	Obstruction Remover
10	1005-01-449-8902	01-5	T-Handle
11	1005-01-449-9674	316-5	NATO Adapter
12	1005-01-445-5889	9098	Rod Handle
13	1005-01-449-9277	9100	Rod Handle Adapter
14	9510-01-102-1473	900	CLP

- **Lubricant/solvent** – Any quality solvent, lubricant or combination solvent/lubricant designed for use on firearms can be used successfully on the M1014 Combat Shotgun. Basically if it's safe to put your hands into, it's safe for use on all surfaces of the shotgun to include the plastic components (**be careful NOT to scrub the painted markings on the safety button and rear sight assembly with solvent and a brush**).

NOTE

Avoid getting solvents and lubricants on nylon or cotton webbing and rubber surfaces as it can dry these materials and cause premature aging and deterioration.

HK specifically recommends the use of "CLP" lubricants for all surfaces of the combat shotgun. Graphite grease/paste can also be used on the bolt group and hammer but is not required. Bore cleaners with ammonia added, such as "Hoppe's #9" or "Shooters Choice" work best on the bore and remove jacket fouling. **Avoid** the use of lubricants and solvents that boast of their ability to penetrate metal and cracks, such as "WD40" and "Tri-Flow" as these types of fluids can penetrate and deaden primers of cartridges exposed to it.

CLEANING INTERVALS – There are two types of operator cleaning for most weapons: normal cleaning and major cleaning.

Normal cleaning – Performed after each firing, after firing 500 rounds, or every six months.

Major cleaning – Performed every 5,000 rounds or when the weapon has been fully immersed in water or laden with sand or debris.

NOTE

The cleaning intervals listed above are recommended intervals only. Your intervals between cleaning will vary greatly depending on many factors to include the type, quantity and quality of ammunition used, the environment in which the shotgun is operated, the thoroughness of your cleaning, and many other factors.

Normal Cleaning

1. CLEAR THE WEAPON!

2. Disassemble the weapon into the seven assembly groups and remove accessories.

3. **Optional carrying sling** – The cotton and/or nylon webbing of the sling and plastic components can be easily cleaned using warm water, a mild soap and a soft bristled brush. Allow the sling material to dry completely before storage or use.

The metal components on the sling can be cleaned using standard weapons solvent and lubricant.

4. **Buttstock** – Simply remove any foreign debris from the exterior surfaces of the buttstock using a toothbrush, rag, swabs, or compressed air.

5. **Trigger group** – Remove any foreign debris from the trigger group using a toothbrush, rag, swabs or compressed air.

Lightly scrub the top of the trigger mechanism with a soft nylon bristle brush and solvent to remove carbon fouling, paying special attention to the hammer and shell carrier. Remove the loose fouling and debris by rinsing the trigger group in a solvent tank or by using rags, swabs, or compressed air.

6. **Forearm** – Remove any foreign debris from the interior and exterior surfaces of the forearm using a toothbrush, rag, swabs, or compressed air.

7. **Accessory mounting rail and sights** – Remove any foreign debris from the accessory mounting rail and front and rear sights using a toothbrush, rag, swabs, or compressed air.

8. **Barrel**

Bore – A critical part of any firearm – the bore – requires special care and attention if maximum accuracy is to be obtained from the weapon **and maintained** for the life of the barrel.

Apply a liberal amount of solvent or bore cleaner to the bristles of a caliber 12-gauge bronze bristle bore brush. We strongly recommend the use of bore cleaners that contain ammonia to remove both carbon and jacket (copper or gilding metal) fouling from the bore, such as "Shooters Choice" or "Hoppe's #9" that can have a drastic negative impact on good accuracy.

CAUTION

1. Never clean the bore from the muzzle end of the barrel as damage to the bore and/or muzzle may occur as a result of contact with the cleaning rod. A damaged bore or muzzle can have an appreciable adverse effect on the accuracy of the weapon.
2. Never stop or attempt to reverse direction when pushing a bore brush or cleaning patch through the bore or it may become permanently lodged in the barrel.

Insert the bore brush into the bore from the chamber end of the barrel. Push the bore brush completely through the barrel without stopping until it fully exits the muzzle of the weapon. Remove the bore brush and withdraw the cleaning rod. Reattach the bore brush, wet it again with bore cleaner and repeat this process a total of five to seven times. Allow the bore cleaner to sit in and work on the fouled bore for a few minutes while you clean the other areas of the barrel.

Chamber – Apply a liberal amount of solvent or bore cleaner to the bristles of the 12-gauge bronze bristle bore brush. Insert the brush into the back of the barrel and into the chamber and lock the handle of the cleaning rod if necessary. Rotate and "pump" the bore brush back and forth in the chamber at least five to seven times to clean the chamber. Remove the brush from the cleaning rod and allow the solvent to work in the fouled chamber.

Chamber face and barrel extension – Often considered the most important place to clean on the M1014 Combat Shotgun, it is easily tackled using a toothbrush and solvent, available as part of the HK Field Shotgun Cleaning Kit.

Apply a few drops of solvent to a toothbrush and scrub the area around the barrel extension, especially in the recesses for the extractor and bolt head locking lugs to break up the carbon fouling. Use swabs, a rag, compressed air and patches to remove the loose fouling from these areas.

Bore again – Now, use caliber 12-gauge bore cleaning patches to remove the loose fouling from the bore and chamber. Attach a patch holder to the cleaning rod and insert and center a cleaning patch, or multiple patches if necessary, in the patch holder. Insert the cleaning patch doused in solvent or bore cleaner through the back of the barrel and push it all the way through the bore without stopping. Remove the fouled cleaning patch from the patch holder and withdraw the cleaning rod. Repeat this process again six or more times using clean **dry** cleaning patches or until little or no fouling shows on the patches that emerge from the muzzle of the Combat Shotgun.

Gas system – Remove any fouling or debris from the outside surfaces of the gas pistons and cylinders and the gas cylinder plug using a toothbrush, swabs, and a rag.

NOTE

Disassemble the gas system only for cleaning every 500 rounds or when there is evidence of water, debris or excessive fouling within the system, or when the gas pistons do not move freely within the gas cylinders.

Receiver – Using a clean rag, swabs and compressed air, remove the visible solvent and fouling from all interior and exterior surfaces of the receiver to include the components of the port covers. Pay special attention to the inside of the receiver, the openings to the magazine tube and recoil spring tube, ejector, and those ever-important bolt guiding surfaces.

Remove all visible debris from the exterior surfaces of the recoil spring tube and the threads that the buttstock attaches to.

9. **Bolt group** – Disassemble and scrub all parts and surfaces of the bolt group using a toothbrush and solvent. Remove carbon fouling and loose debris, especially around the extractor and bolt head locking lugs.
10. **Carrying/storage case (if applicable)** – Don't forget to clean this very important part of the complete system. Protect the case that protects your weapon. Clean foreign debris from the interior surfaces of the case using compressed air or a soft bristle brush. Make sure that the interior of the case always stays dry. **NEVER** place the weapon or accessories in the case if the interior of the case is not completely dry. **NEVER** place or leave a wet weapon in the case for any reason.

Normal cleaning of the M1014 Combat Shotgun by the operator is now complete.

Major Cleaning

1. **CLEAR THE WEAPON!**

2. Perform "Normal Cleaning" as described previously.

3. Disassemble the gas system as described previously, "Operator Disassembly".

Remove all carbon fouling and debris from all surfaces of the gas pistons, gas cylinders and gas plug using the gas cylinder brush provided with the shotgun, a toothbrush with solvent, swabs, and a rag. **DO NOT** disassemble the gas cylinder plugs!

4. **Magazine** – don't forget the magazine components! They are very important to the proper operation of the shotgun and yet are often overlooked during cleaning. A high percentage of stoppages occur as a result of an improperly maintained magazine.

Use the bore brush and patches on the cleaning rod to clean the interior surfaces of the magazine tube and extension. Use a rag and toothbrush to clean any debris from the exterior and threads of the magazine tube and extension, the follower, and magazine spring.

Major Cleaning of the M1014 Combat Shotgun by the operator is now complete.

OPERATOR INSPECTION

During or immediately after cleaning is completed, the operator should briefly inspect the clean parts and surfaces of the weapon and accessories for any irregularities that may cause problems during their use. If any potential deficiencies or unusual conditions are noted, they should be corrected immediately or brought to the attention of the unit armorer.

In general, the operator should keep a watchful eye out for the following general discrepancies in the weapon as a whole, in each assembly group, in the magazine, and in the accessories to the combat shotgun.

- Improper function
- Missing parts
- Cosmetic flaws (cracks, dents, burrs, rust, witness marks, etc.)
- Improper assembly
- Loss of spring tension (where applicable)
- Uncustomary looseness (where applicable)
- Cracked welds or seams
- Excessive wear
- Absence of protective finish (where applicable)
- Absence of lubrication in the proper amount.

Also check these more specific areas on the M1014 Combat Shotgun that may cause the more common functional problems in the weapon. Correct or report any deficiencies noted to the unit armorer.

1. Magazine

- Bent, dented or cracked magazine tube
- Misshaped follower or spring

2. Bolt Group

- Loose extractor (easily moved with very little finger pressure)
- Cracked or pitted extractor
- Cracks appearing anywhere on the bolt head
- Broken or missing firing pin spring
- Mushroomed or deformed firing pin tip or head
- Missing or damaged O-ring (retaining ring) on the firing pin retaining pin

3. Barrel

- Bent barrel extension
- Missing or damaged ejector
- Corroded chamber, barrel extension, or bore
- Loose sight components
- Free movement of the gas pistons (with the bolt locked open)
- Gas cylinder plugs are securely attached to the gas cylinders

4. Receiver

- Immobile recoil spring plunger
- Loose rear sight assembly
- Bent or loose recoil spring tube
- Bent or missing trigger group locking pin

5. **Buttstock**
 - Loose pistol grip
 - Broken or damaged mounting hardware
 - Foreign matter or debris in telescoping stock
6. **Trigger group**
 - Bent or cracked shell carrier
 - Excessive lateral (left and right) play of the shell carrier
 - Cracked or broken hammer
 - Lack of tactile stops in safety button for "safe" and "fire" positions
7. **Forearm**
 - Cracks

LUBRICATION

A mechanical device, such as a firearm, requires proper lubrication to function as designed. The M1014 Combat Shotgun is no exception. Any type of high quality, medium weight lubricant (oil) specifically designed for use on firearms such as "CLP," Benelli "MF82" or "MILITEC" will work well on the Combat Shotgun. Graphite paste/grease is also excellent on specific areas of the bolt and trigger group. **DO NOT USE** lubricants/cleaners that boast of their ability to penetrate metal (i.e., "WD-40," "Tri-Flow," etc.) as these substances may deaden primers.

Where and How Much

NO Lube – (surface is dry and not slippery to the touch)

- Plastic or rubber components
- Sling webbing
- Aluminum components
- Gas pistons
- Gas plugs

LIGHT Lube – (a finger run across the surface of the item yields little or no lubricant)

- Bore and chamber
- Interior and exterior of barrel extension
- Ejector (one or two drops)
- Trigger mechanism
- Magazine interior, follower and spring
- All operating controls (trigger, safety button, shell stop, bolt and shell releases, etc.)
- Rear sight assembly
- Rear sight windage and elevation adjustment screws (one or two drops)
- Magazine tube exterior threads
- Anywhere where metal moves on metal
- All steel parts and accessories

MEDIUM Lube – (a finger run across the surface of the item yields some lubricant but lube does not run down the side of the item when it is held in a vertical position)

- Bolt group (1 or 2 drops in these areas below every 500 rounds)
 - Cam pin
 - Bolt head locking lugs and extractor
 - Bolt carrier guide rails

- Between bolt head and bolt carrier
- Recoil spring plunger

HEAVY Lube – (lubricant runs down the surface of the item when held in a vertical position).

- **NO HEAVY LUBE** is required on the M1014 Combat Shotgun

Reapply lubricant using a clean shaving brush, swabs, patches or a rag, especially to the bolt group periodically during firing as the heat generated will burn off the lubricant. One or two drops every 500 rounds fired in the cam pin, bolt head locking lugs, extractor, bolt carrier guide rails, and between the bolt head and bolt carrier will keep the shotgun operating well. A spray bottle of lubricant also works well when compressed air is available to circulate and remove excess lubricant.

Graphite paste/grease can be used on the locking lugs of the bolt, the locking recesses in the barrel extension, on the bottom side of the bolt carrier, and on the top of the hammer, but must be used sparingly. Excessive grease retains fouling and debris which could adversely effect the operation of the combat shotgun.

Extreme temperature lubrication procedures – If the M1014 Combat Shotgun is to be used or fired in temperatures below -35 degrees F, thoroughly remove all other types of lubricant from all internal and external surfaces of the weapon, and apply LAW (Lubricating oil, Arctic, Weapons) lubricant, NSN: 9150-00-292-9689, to the shotgun in accordance with the instructions for applying LIGHT and MEDIUM amounts of lubricant as described above. Refer to the Lube Guide below for further guidance on selecting the correct lubricant for all temperature ranges.

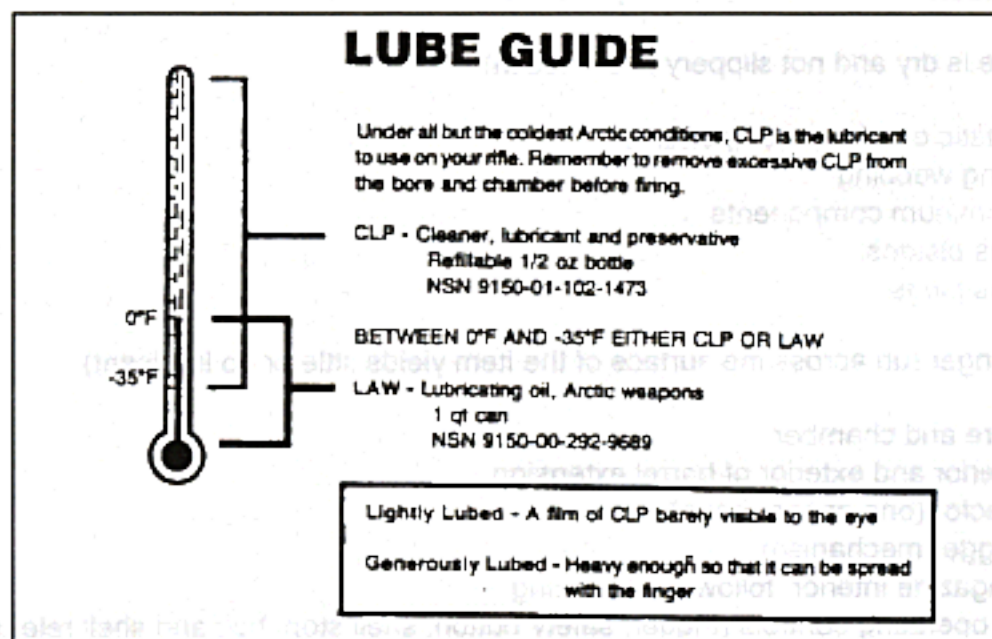


Figure 45. Lube guide

STORAGE OF THE WEAPON

- Store the Combat Shotgun and accessories cleaned and lubricated.
- Store the Combat Shotgun **without** rounds in the chamber, receiver, or magazine, and with the bolt group and hammer forward with all the springs at rest.
- Clean and lubricate the weapon and its accessories every six months when not in use.
- Store the weapon in a clean, dry environment with regulated temperature controls.

If available, store the complete weapon system in a rack or protective case. When stored in a case, position the shotgun in the case with the top of the receiver positioned closest to the carrying handle and away from the bottom of the case to relieve pressure on the sights or attached optional sighting device when the case is standing upright.

AMMUNITION

The M1014 Combat Shotgun was designed to use ammunition designed to military or commercial (SAAMI) specifications. Like an automobile engine, you cannot expect top performance when using poor quality fuel. The same rule of thumb applies to the selection and use of ammunition in a quality firearm like the M1014 Combat Shotgun. Garbage in, garbage out!

Newly produced M1014 Combat Shotguns are all proof fired, function fired and then fired for zero/pattern at the factory using assorted types of commercial and military ammunition. Most often the rounds selected for this test firing are that ammunition to be used by the customer in the fielded weapons.

Whether you choose one of the commercially available rounds or the military issue 2.75-inch nine pellet 00 buckshot round, there are a number of general considerations that should be made when selecting the type or types of ammunition your organization will employ in the Combat Shotgun.

DO USE

- Caliber 12-gauge ammunition of recent manufacture, preferably with a minimum charge weight of at least 1 1/8 ounce dram equivalent.
- 2.75 inch and 3.00 inch magnum ammunition.
- High-quality ammunition for the best obtainable accuracy.
- Clean burning ammunition.
- Non-corrosive ammunition.
- Rounds assembled with steel, lead, tungsten or copper-plated projectiles.

DO NOT USE

- Reloaded or remanufactured ammunition that is not assembled to strict specifications and with fool proof quality control. Be aware of military supplies, foreign or outdated ammunition.
- Corrosive ammunition (primer and/or propellant).
- Any ammunition that exceeds NATO or SAAMI pressure limits for the 12-gauge cartridge.
- Empty cartridge cases as "dummy" (inert) rounds for training. Use complete dummy rounds.
- Ammunition that is corroded, bent, dented, deformed or otherwise in unserviceable condition.
- Ammunition that has been exposed to chemicals, solvents or prolonged direct sunlight or heat.
- 2.50 inch ammunition – It can be safely chambered and fired in the M1014 Combat Shotgun, but may not provide sufficient power to cycle the action of the weapon.

General

Rear Sight – The rear "Ghost Ring" sight contains a single peep aperture. The rear sight assembly is protected from damage by an integral guard. The sight is adjustable for windage and elevation without special tools, needing only a coin, the bolt handle, or the rim of a shell for these adjustments. Tactile clicks are provided for both elevation and windage adjustments. The rear sight is marked "UP" for elevation and "R" for right windage.

The rear sight aperture is attached to the elevating platform that pivots on a front axle pin through the rear sight base. The elevating platform and thus the rear sight aperture is raised and lowered by the rotation of the elevation adjustment screw. The elevating platform and elevation adjustment screw are held firmly in place during rough handling and firing by the pressure exerted by the strong elevation spring.

Horizontal index lines are provided in the center of the rear surface of the elevating platform for making incremental elevation adjustments. A white graduated scale is provided on the top side of the elevating platform for incremental windage adjustments of the rear sight. An opposing white index mark is visible on the rear sight aperture for use with the windage scale.

Front Sight – The front sight is a simple post positioned within protective steel ears. The front sight base to which the post is attached is permanently brazed to the end of the barrel and is not removable. The front sight does not interfere with the field of view or use of optional sighting and targeting devices attached to the accessory mounting rail on the receiver of the shotgun.

The low profile and sleek design of the front and rear sight is designed to prevent the sights from catching on vegetation during movement through natural terrain covered with trees, bushes, grasses and vines. In addition this allows the iron sights to be used even when optional targeting devices are attached to the accessory mounting rail on the receiver.

Correct Sight Alignment – The unique "Ghost Ring" sights employed on the M1014 Combat Shotgun take advantage of the natural ability of the human eye and brain to center the top of the front sight post within the rear "Ghost Ring" peep aperture. This sighting system is very similar to that of the M16 rifle and M4 carbine fielded in the U.S. Armed Forces. These sights make it quick and easy for the firer to quickly aim the weapon at the intended target with minimal effort yet provide sufficient precision for surgical accuracy with both multiple and single projectile ammunition.

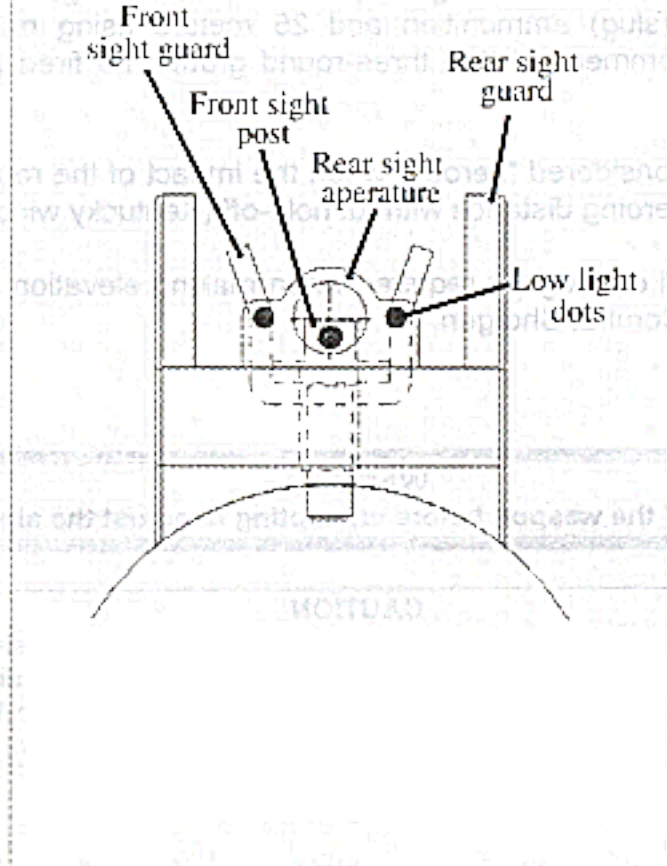


Figure 46. Correct sight alignment with "Ghost Ring" sights

To correctly align the sights, assume a stable firing position with the weapon. Establish a proper cheek weld on the shotgun with your eye relief within 2-6 inches of the rear sight aperture. Maintain a consistent cheek position and eye relief on the weapon at all times during aiming and firing. Looking through the rear sight aperture, center the top of the front sight post horizontally and vertically within the rear sight aperture. The material surrounding the rear sight aperture will appear as a soft, hazy "ghost ring" when you are concentrating on the front sight post, thus the origin of the name "Ghost Ring" sighting system. The sights are now properly aligned in the illustration (Figure 46).

You will have to make constant fine corrections to the relationship of the front and rear sights to maintain proper sight alignment. Even minute errors in sight alignment will result in angular deflection of the projectile(s) away from the aiming point in the direction of the misaligned front sight post. Deflection errors multiply as the range to the target increases.

Correct sight picture – The only difference between sight alignment and sight picture is the addition of the target to the image seen by the firer when looking through the iron sights. The top of the front sight post is used to select the aiming point of the weapon and should be placed at precisely the point where you wish the projectile(s) to impact.

SIGHT ADJUSTMENT

General – It is recommended that the iron sights of the Combat Shotgun be zeroed at a range of 100 meters with single projectile (slug) ammunition and 25 meters using multiple projectile (00 or 000 buckshot, etc.). It is also recommended that three-round groups be fired prior to making adjustments when zeroing with slugs.

The weapon's iron sights are considered "zeroed" when the impact of the rounds fired intersect the exact point-of-aim at the prescribed zeroing distance without hold-off (Kentucky windage and elevation).

Only a coin or the rim of a shell cartridge is required when making elevation and windage adjustments to the rear sight assembly of the Combat Shotgun.

Adjustment Procedure

WARNING

"Clear" the weapon before attempting to adjust the sights.

CAUTION

Use care when turning the windage and elevation screws on the rear sight assembly. Use the correct size coin, the bolt handle, or the rim of a shell cartridge when adjusting the rear sight assembly of the Combat Shotgun. Use of the incorrect size sight adjustment tool may cause damage to the slot in the head of the adjustment screws making it difficult or impossible to make sight adjustments.

Elevation adjustment

Use a coin, the bolt handle, or the rim of a shell cartridge to rotate the elevation adjustment screw, located on top of the elevating platform in the desired direction. Note on the elevation scale on the rear surface of the elevating platform the amount of adjustment made, or count the tactile clicks of the screw.

UP – Rotating the elevation screw in a **COUNTER-CLOCKWISE** direction **RAISES** the aperture and the point-of-impact of the projectile(s) on target.

DOWN – Rotating the elevation adjustment screw in a **CLOCKWISE** direction **LOWERS** the aperture and point of impact of the projectile(s) on target.

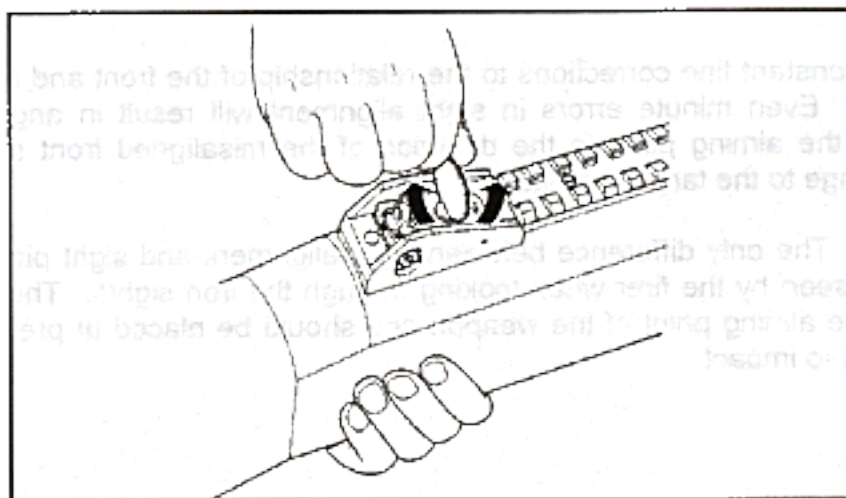
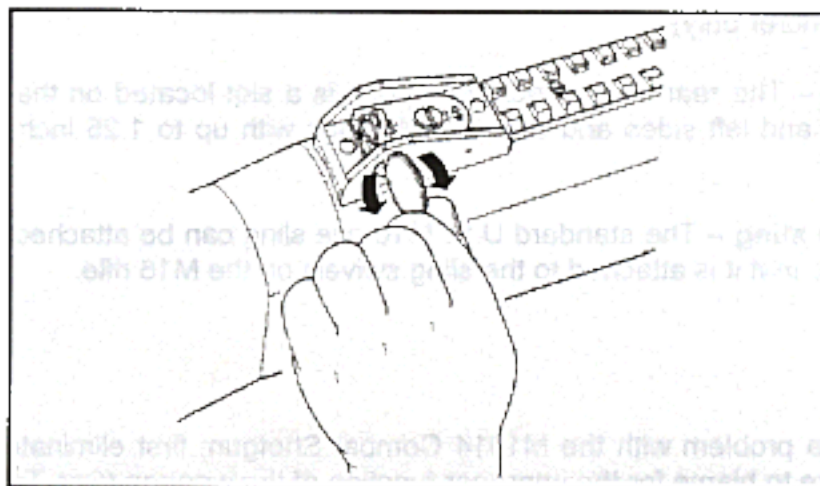


Figure 47. Rotating the elevation adjustment screw

Three clicks of the elevation adjustment screw moves the impact of the projectile vertically .25 inch (6.35 mm) at 25 meters distance, or 1.00 inch (25.40mm) at 100 meters.

Windage adjustment (Figure 48)

Using a coin, the bolt handle, or the rim of a shell, rotate the windage adjustment screw located on the right side of the rear sight assembly in the desired direction. Note on the windage scale, located on the top-side of the elevating platform, the amount of adjustment made or count the tactile clicks of the windage adjustment screw.



- LEFT –** Rotating the windage adjustment screw in a **COUNTER-CLOCKWISE** direction moves the point-of-impact of the projectile(s) on target to the **LEFT**.
- RIGHT –** Rotating the windage adjustment screw in a **CLOCKWISE** direction moves the point-of-impact of the projectile(s) on target to the **RIGHT**.

Seven clicks of the windage adjustment screw moves the impact of the projectile(s) horizontally .25 inches (6.35 mm) at 25 meters distance, or 1.00 inch (25.40mm) at 100 meters).

USE OF THE SLING

General – The M1014 Combat Shotgun is outfitted with ambidextrous sling mounting points for the attachment of nearly any style carrying, shooting or multi-purpose sling available.

Front attachment point – The front sling attachment point is an integral piece with the front forearm retaining ring and allows the sling to be attached to either side of the shotgun for right or left-hand use by rotating it left or right (armorer only).

Rear attachment point – The rear sling attachment point is a slot located on the buttstock. The slot is accessible on both right and left sides and can accept slings with up to 1.25 inch wide sling webbing or attachment hardware.

Standard U.S. M16 rifle sling – The standard U.S. M16 rifle sling can be attached to the M1014 Combat Shotgun in the same way that it is attached to the sling swivels on the M16 rifle.

TROUBLESHOOTING

Should you experience a problem with the M1014 Combat Shotgun, first eliminate the following general causes that very often are to blame for the improper function of the weapon (See Table 3).

- Operator error (incorrect manipulation, use or maintenance)
- Ammunition (bad lot, poor quality or condition, wrong type or length, underpowered)
- Magazine (damaged, fouled or lacking sufficient lubrication)
- A fouled or poorly lubricated weapon
- Weapon is assembled incorrectly or with the wrong components

NOTE

Some of the repair procedures listed on the table that follows are procedures that only a trained armorer may perform. If the procedure is not covered in the text of this manual as an operator responsibility or procedure, then that procedure can only be undertaken by your unit armorer or HK.

TROUBLESHOOTING THE MORE COMMONLY ENCOUNTERED M1014 COMBAT SHOTGUN PROBLEMS

SYMPTOM	CAUSE	REMEDY
Shotgun will not fire	Bolt not locked closed.	Fully retract bolt handle and release. DO NOT ride the bolt handle forward.
	Obstruction in chamber, receiver, or magazine.	Remove obstruction.
	Broken firing pin.	Replace firing pin.
	Broken hammer.	Replace hammer.
	Fouled locking lugs and/or recesses and/or barrel extension.	Clean and lube.
	Safety button set on "safe" (red ring is not visible).	Set safety button to "fire" (red ring is visible).
	Trigger pulled by operator before bolt was locked fully forward.	Retract bolt handle fully rearward, release, and try again.
Empty cases do not eject from the weapon	Worn extractor spring.	Replace extractor spring.
	Worn ejector.	Replace ejector.
	Fouled chamber.	Clean chamber with bore brush and solvent.
	Bad ammunition. Soft case head material. Look for raised ring around primer, excessively deep extractor claw marks on empty hull.	Replace ammunition.
	Gas system or pistons are fouled.	Disassemble and clean. Do not lube!
	Light recoil of ammunition.	Use ammunition with 1 1/8 ounce dram equivalent propellant charge, or greater.
Rounds fail to feed	Magazine tube is loose.	Fully tighten magazine tube cap.
	Faulty magazine.	Replace magazine spring, tube, or follower.
	Damaged shell stop.	Replace shell stop or spring.
	Bent shell release lever.	Replace shell release lever.
	Bad ammunition.	Replace ammunition.
	Fouled chamber, bolt head or barrel extension.	Clean and lubricate.
	Light recoil of ammunition.	Use ammunition with 1 1/8 ounce dram equipment propellant charge, or greater.
	Magazine tube is loose.	Fully tighten magazine tube cap.
	Bent barrel extension.	Return shotgun to armorer or HK for repair.
	Obstruction in chamber or receiver.	Remove obstruction.
Bolt does not lock fully forward, or bounces back out of battery	Incorrect loading procedure used (bolt handle ridden forward).	Adjust operator headspace. Review and apply correct loading procedure.
	Fouled barrel extension, locking lug recesses or bolt group.	Clean and lube.
	Faulty ammunition.	Replace ammunition.
	Worn recoil spring.	Replace recoil spring.
	Damage to or dent in receiver.	Return shotgun to armorer or HK for repair.
Accuracy declines	Loose sights.	Tighten sights, mounting hardware for optional targeting devices on accessory mounting rail screws.
	Bad sight mount.	Repair or replace sight mount.
	Change in ammunition performance	Test and/or replace ammunition.
	Malfunctioning sight.	Repair or replace sight.
	Fouled bore.	Clean and lube as directed. Remove jacket fouling/metal gilding with solvent containing ammonia.
	Barrel damaged or worn.	Replace barrel.